

THE JOURNAL OF MEDICAL EDUCATION

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OCTOBER 1957 • VOLUME 32 • NUMBER 10
IN TWO PARTS—PART I

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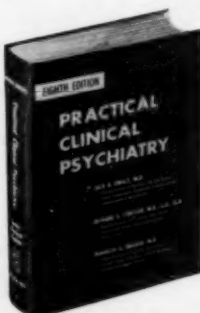
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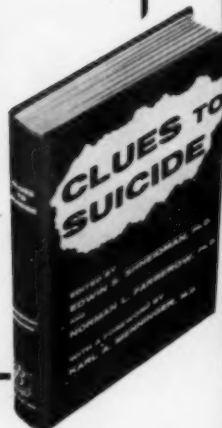
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Journal of MEDICAL EDUCATION

Published Aug. 15, 1957

MODERN PERINATAL CARE

By

LESLIE V. DILL, M.D., F.A.C.S.

Diplomate of the American Board of Obstetrics and Gynecology

Associate Clinical Professor, Obstetrics and Gynecology, Georgetown
University School of Medicine; Consultant, Obstetrics and
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With Our Authors

Marcus D. Kogel

The Albert Einstein College of Medicine, p. 675. Dr. Kogel is dean of the college of medicine, and also professor and chairman of the department of preventive and environmental medicine. He received his M.D. from New York Medical College.

Louis F. Fieser

Recommendations for Admission to Medical Schools, p. 682. Mr. Fieser is with the department of chemistry, Harvard University. This article appeared previously in the May issue of *The Journal of Chemical Education*.

Sison, Rotor, Campos

College of Medicine, University of the Philippines, Semi-Centennial, 1957, p. 687. Dr. Agerico B. M. Sison is dean of the college of medicine, University of the Philippines and also professor and head of the department of medicine.

Dr. Arturo B. Rotor is associate professor of medicine, and Dr. Pablo O. Campos is assistant resident in medicine, department of medicine, and Philippine General Hospital.

Hargrove, Ham, Fleming

Multi-Disciplinary Teaching of Human Ecology in the First Year of Medi-

cine, p. 697. Dr. Eugene Hargrove and Dr. George Ham are in the department of psychiatry and Dr. William Fleming is in the department of preventive medicine, University of North Carolina School of Medicine.

Brant, Kutner

Physician - Patient Relations in a Teaching Hospital, p. 703. Dr. Charles S. Brant is now assistant professor of anthropology, Portland State College, Portland, Oregon. At the time this article was written, he was research associate in the department of surgery, Albert Einstein College of Medicine. Dr. Bernard Kutner, a social psychologist, is assistant professor of preventive and environmental medicine, Albert Einstein College of Medicine.

Sir Francis Walshe

Medicine in the Framework of the University, p. 708. Sir Francis Walshe, O.B.E., M.D., D.Sc., F.R.C.P., F.R.C.S., is consulting physician, University College Hospital and National Hospital, Queen's Square, London. This article was the first Arthur Hall Memorial Lecture, given at the University of Sheffield, March 22, 1956. This material is reprinted from the *British Medical Journal*, June 23, 1956.

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68th Annual Meeting, October 21-23, 1957
Chal Fonte, Haddon Hall, Atlantic City, N. J.

American Medical Association—1958 Annual
Meeting—June 23-27, San Francisco.

American Academy of Pediatrics—October 7-10,
Chicago.

American College of Surgeons—October 14-18,
Traymore Hotel; Atlantic City, N. J.

American Heart Association—October 25-29,
Hotel Sherman; Chicago.

World Medical Association—September 29-
October 5, Istanbul, Turkey.

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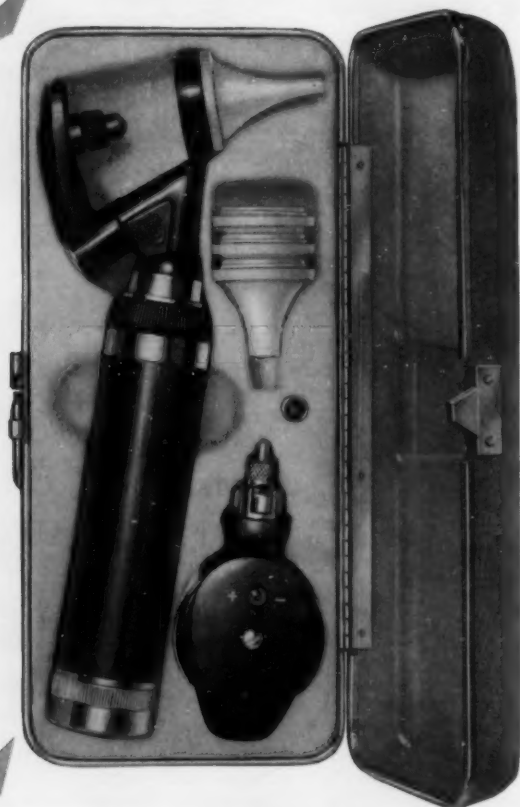
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References: 1. Case reports in the Pfizer Medical Department Files from fifty-three clinicians, and the following published reports: Shubin, H.: *Antibiotic Med. & Clin. Therapy* 4:174 (March) 1957. Carter, C. H., and Maley, M. C.: *Antibiotics Annual* 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 51. Winton, S. S., and Chesrow, E.: *Ibid.*, p. 55. LaCaille, R. A., and Prigot, A.: *Ibid.*, p. 19.

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*The American Foundation: Medical Research:
A Midcentury Survey, Boston, Little, Brown
and Company, 1955, vol. 1, p. XXXI.

**Ibid., p. 600.



Architect's Conception of the College

The Albert Einstein College of Medicine

MARCUS D. KOHEL

EVEN FOR those of us who have been intimately associated with the project, it is hard to realize that only a little over three years have passed since the Albert Einstein College of Medicine has emerged from a set of prints on a drawing board. Today the Science Building is essentially complete—three classes are in session,—a Ph.D. program in the medical sciences is under way, a major part of the faculty is busily at work in laboratories, class rooms and at the bedside, a splendid library and auditorium are under construction and a dormitory to house 300 students is nearing completion.

What is unusual about this project is that it was sparked by no financial windfall. It was essentially a magnificent affirmation of faith, an act of extraordinary courage and vision on the part of the president of a struggling young university. Yeshiva University is a private liberal arts institution under Jewish auspices, with its main academic center at 186th

Street and Amsterdam Avenue, New York. In common with a great many other institutions of higher learning it had its origin in a theological seminary which was founded in 1886. Gradually it broadened the scope of its purpose to embrace also secular fields of learning. In 1945 it attained university status, and on December 15, 1950 its application to the Board of Regents of New York State for an amendment to its charter authorizing it to grant the degrees of Doctor of Medicine and Doctor of Dental Surgery was approved.

It was the conviction of the president of the university, shared by the trustees, that the Jewish community make a collective contribution to medical education by providing a non-sectarian college of medicine under the auspices of an established and accredited university. It was considered essential that a university give birth to this new college to insure its development as a true institution of higher learning where social and philosophical values have equal standing with technology.

Dr. Kogel is dean at Albert Einstein College of Medicine.

Advisory Council on Medical Education

As a final step, the university's dynamic president, Dr. Samuel Belkin, proceeded to organize an Advisory Council on Medical Education. Harry M. Zimmerman, M.D., an eminent neuropathologist, was chairman, of the council, and Donald G. Anderson, M.D., the secretary of the Council on Medical Education and Hospitals at the time, became a consultant to the group. The writer was one of the members.

To guide the Advisory Committee, Dr. Belkin issued a Declaration of Principles as follows:

1. The Medical College will be a non-sectarian institution devoted to medical science as a contribution by American Jewry;

2. The Medical College will have a Board of Overseers of outstanding civic and communal leaders representing all faiths;

3. The Medical College will be national in scope and both faculty and students will be selected solely on the basis of scholarship and character, regardless of race, color, creed or sex; and

4. The Medical College will seek to serve humanity through a comprehensive scientific program and extend the frontiers of medical knowledge through research and teaching.

Actually the Council met only two or three times. In very short order things began to move so quickly that an Advisory Council of busy men from all sections of the country proved to be too unwieldy a group to direct the development of so demanding an operation.

A fund raising campaign was quickly started and a board was appointed to plan the criteria for the physical layout of the college of medicine. Dr. Harry Zimmerman was appointed chairman of this board; Dr. White, the Associate dean and currently chairman of the department of biochemistry was a member,

as was also Mr. Joseph Blumenkranz, a creative architect. To these three men belongs the credit for the physical organization of the college. When the writer became the chairman of this team, the architectural plans for the college were already drawn.

Affiliation with Bronx Municipal Hospital Center

Among the fruits of the deliberation of the Medical Advisory Council was the recommendation to the president of the university that an affiliation be sought between the new college of medicine and a large hospital center which the City of New York was constructing at a cost of \$45 million on a 63 acre site in the East Bronx. Dr. Belkin saw the wisdom of the recommendation and successfully concluded an agreement with the City of New York whereby the professional care of all patients in the new 1,400 bed Bronx Municipal Hospital Center became the responsibility of the faculty of the college of medicine, and the students were to be given full use of the wealth of clinical material available on the inpatient and outpatient services.

We sought to develop within the school an atmosphere as free from tensions as is humanly possible, with the freest interchange between faculty and students. It was felt by our Planning Committee that mature, highly motivated students should have a relative degree of privacy for their laboratory work and the new college should provide them with office space which they could use as a so-called "home base." From this thinking and other considerations of functional design there evolved the basic student laboratory housing eight students.

A cornerstone of our philosophy of

medical education is an integrated curriculum, the achievement of which cannot be attained through fiat, directives, correlators or committees. We believe and practice the principle that integration is an easy and natural outgrowth of two forces—the development of strong teachers and of strong departments and their desire to cooperate and to complement one another. We are learning that achievement of this goal is not only possible, but holds the greatest promise of enduring success through such a voluntary approach. To insure against falling into a rigid pattern of any kind we have a watch-dog committee of the faculty to conduct a continuous evaluation of the curriculum.

The college consists of a 10-story basic science wing, 298 feet in length and 90 feet in width; a three story library wing which projects at right angles from the science building and is 245 feet long and 80 feet wide; and a 750 seat auditorium which abuts on the library at a point about three quarters of the distance to the far end of the library wing. The auditorium is joined to the library wing by an overhead structure, permitting vehicular traffic between the two buildings. The distal end of the library wing, beyond the auditorium houses the student faculty lounge. In addition to these structures there is a boiler plant and a student dormitory capable of housing 300 students. The dormitory, the library and the auditorium wings are currently under construction. The science building is essentially complete.

Contemporary design

The design of the college is contemporary, with emphasis on simplicity and function. A modular concept is emphasized throughout, the mod-

ule being a uniform 20 foot bay. The utility shafts for laboratory use are at each column on the 20 foot module. The form of the building grew out of the need for flexibility and compactness, and the location in a central area of facilities in common use by faculty and students. This led to the double corridor service core with student facilities on the north side. This orientation was predicated on the premise that students use their facilities mostly during the day, whereas faculty and graduate students work regardless of time.

The core opens upon the two longitudinal corridors which are cross-connected by two centers of vertical circulation (elevators and stairs) at approximately quarter points of the length of the corridors.

The decision to have classes of approximately 100 students housed in laboratories accommodating eight students dictated the length of this corridor; this resulted in 14 student laboratories each occupying a bay 20 x 20 encumbering the north perimeter of a typical floor.

The small student laboratory housing eight students is a major departure from current and past practice. The large student laboratories are traditional, and it is customary for each of the academic departments teaching the first two years to have its own laboratories for the practical exercises required by the particular discipline. Generally, the laboratory instruction occupies only a portion of the academic year, and during the remainder of the time these laboratories stand idle. Our laboratories are multipurpose in that it is possible for instruction in several disciplines to be conducted in a single laboratory. This eliminates the necessity for the student to move from one department to another for instruction and there is more of a feeling of the unity

of the subject matter of the curriculum. The small laboratory units emphasizing individualization of instruction require a higher ratio of faculty to students.

Major teaching hospital

The major teaching hospital of the college is the Bronx Municipal Hospital Center, which is on a 63 acre site directly adjacent to the college. The Center comprises two main hospital units. The Abraham Jacobi Hospital, with a capacity of 898 beds exclusive of bassinets, and the Nathan B. Van Etten Hospital with a capacity of 511 beds. In addition to the two hospitals there is a staff residence building with accommodations for 250 house staff, a store house, shops, a garage, a laundry and a power plant.

In addition to the usual hospital facilities, the following special features may be noted as part of the Abraham Jacobi Hospital. A significant provision is made for rehabilitation and physical medicine, including 78 beds and rehabilitation service areas. The latter provides physiotherapy, hydrotherapy, speech therapy, exercise rooms, remedial gymnasia and a complete facility for training patients in daily living activities. A speech and hearing center is provided to assist children and adults with speech and hearing difficulties. A separate communicable disease unit includes 36 beds, with its own X-ray and operating rooms. An outstanding feature of the Abraham Jacobi Hospital is a separate mental hygiene unit, including its own outpatient services, diagnostic and therapeutic units. The pediatric service includes a premature center and nurseries. The building also contains a library for patients, a medical library and two auditoriums.

The excellent facilities of every type provided in the Abraham Jacobi Hospital has led the City of New York to designate the Bronx Municipal Hospital Center as the psychiatric screening center, the rehabilitation center, the speech and hearing center, the communicable disease center of the Bronx, and also the County Morgue. The College of Medicine is thus assured a wide variety of clinical material, as well as an unusual opportunity to provide material and teaching in the field of forensic medicine. The hospital also contains a court room in which judges of the State Supreme Court sit in connection with cases regarding commitment of mental patients..

The Nathan B. Van Etten Hospital was intended as a chronic disease and tuberculosis hospital. However, the hospital is so designed as to permit its use as a general hospital, and the college of medicine is centralizing there all the chest work, tuberculosis, thoracic surgery, cardiovascular disease and cardiac surgery, as well as neurology and neurosurgery. The largest ward unit in this hospital consists of four beds. There is also an auditorium of 250 seats and library facilities.

The Morrisania City Health Center, a new health center located approximately two miles from the college, is another resource of the college of medicine. It is operated by the Department of Health of the City of New York. Part of two floors containing laboratories, seminar rooms and offices have been turned over for the use of the school. The District Health Officer in charge is a member of our faculty. All the facilities of the Center are available for student teaching.

The college is fortunate also that the State has acquired a 125 acre site

immediately adjoining it on which it will build a 3,000 bed, \$70 million mental hospital to provide both inpatient and outpatient care, including the new "day hospital" type of service, where patients spend the day participating in a regular therapeutic program and return to their homes at night. The hospital will provide for the college, resources for psychiatric teaching, and it is expected that closely integrated programs, especially in the training of psychiatrists and in research in the behavioral disorders will be developed.

Development of curriculum

In the development of the curriculum we were fortunate to have the full participation of the senior faculty. Several departures from the traditional concept and practice are worth mentioning.

The course in psychiatry represents an innovation and is experimental, with the support of a pilot grant from the Public Health Service. The first and second year course is called the "Basic Science of Human Behavior." It consists of 20 sessions of three hours each in the second semester of the first year, and 40 sessions of three hours each in the first semester of the second year. The course is divided into two broad aspects, namely "stimulus material" and small group sessions for discussion and integration of the material presented. The stimulus material presented is composed of lectures, selected reading, field trips, laboratory exercises, "ward walks," movies and case demonstration followed by small group discussions (eight students to a group) lasting one and a half to two hours under the direction of regular group instructors. Each course is under the leadership of a full-time senior faculty member, but the in-

structors in the course represent the fields of clinical and research psychiatry, social sciences, cultural anthropology, neurophysiology, psychopharmacology and developmental, experimental and clinical psychiatry.

The third year course consists of six lectures on the subject of psychosomatic medicine, and a clinical clerkship of six weeks, of which four weeks will be spent on the adult and adolescent wards. The clerks will be responsible for a complete medical and psychiatric work-up and evaluation of at least two patients a week. They will attend one teaching conference daily, included in which are regular ward rounds and the departmental conference. They will be introduced to the principles and indications for the various forms of therapy in psychiatry, and emphasis will be placed on early recognition and the differential diagnosis of clinical psychiatric entities. In the evenings they will be on duty on a rotating schedule and will be present at the evaluation of patients in the emergency department.

The last two weeks of the clerkship they will spend on the children's unit of the department of psychiatry. The fourth year course will consist of a series of eight lectures on treatment and indications for treatment in psychiatric conditions.

The basic courses in biochemistry and physiology for the first year medical students are being taught as a single course. This is true both with respect to lecture material, laboratory experiments and conferences. No distinction is made in the subject matter as to whether it is biochemistry or physiology, but it is all presented as part of a single subject. The joint staffs of the departments of biochemistry and physiology participate in this teaching. In the laboratory, some of the experiments are

done by individual students, others by students working in groups of two, four or eight. One instructor is generally present in each laboratory. Several portions of the laboratory work are given in sections. This is due to the fact that the exercises in these sections involve special and costly equipment which cannot be duplicated for each laboratory. For these exercises students are rotated in groups through laboratories containing special equipment. As a result, during a period of several weeks, three or four different experiments may be going on simultaneously with student groups rotating successively through these experiments. The total hours allocated in the first year to biochemistry and physiology including endocrinology and neurophysiology is 512, of which 10.9 per cent are in lectures, 63.1 per cent in laboratory exercises, 15.6 per cent in conferences and 10.4 per cent in correlative clinical exercises.

In both the departments of physiology and pharmacology the faculty has successfully divorced itself from the use of the traditional kymographs in student exercises and has entered enthusiastically upon the adaptation of modern electronic instrumentation to student use.

The department of preventive and environmental medicine is scheduled to teach in all four years. Thirty hours are allotted in the first year, in a course which is designated to introduce the students to the large problem areas in medical care, stressing health promotion and disease prevention. It is conducted in seminar fashion with the students themselves presenting the issues on the basis of assigned reading. The problems presented are aging, chronic illness, mental health, alcoholism and addictions, accidents, and major world health problems. In the second

year the students have traditional courses in biostatistics and epidemiology. In the third and fourth year, the department will collaborate with the departments of medicine, pediatrics and psychiatry in a Family Care Program and with all the clinical departments in a Home Care Program. In addition there will be approximately 20 hours of lecture time allotted the third year and 20 hours during the fourth year for discussion of community health organizations, environmental medicine, occupational health, sanitary control of water, food, sewage and refuse disposal and medical care services. During the fourth year the student will spend two weeks as a clinical clerk in our District Health Center, participating in the activities of the center with group discussions at the end of each day, under the supervision of the District Health Officer and Staff.

The department of rehabilitation medicine has full departmental recognition at the Albert Einstein College of Medicine. During the first year there is an introduction to the philosophy and scope of medical rehabilitation with orientation to the physical, social and emotional problems of the handicapped, and the biological effects of physical agents (20 hours). In the second year there are conjoined exercises with neurology and diagnostic methodology. In the third and fourth year there are correlative exercises with other departments in addition to a two week clinical clerkship in rehabilitation medicine during the fourth year.

Diagnostic methods is a 264 hour, second year, interdisciplinary course which provides an introduction to clinical medicine. It encompasses the material generally presented in courses in basic medical "history taking," clinical pathology and physical diagnosis. The course begins with

instruction in critical historical inquiry, under the direction of the departments of medicine and of psychiatry. The remainder of the course is devoted to lectures and bedside and laboratory instruction in the disciplines of physical examination and clinical laboratory studies which are completely integrated and not presented as separate courses. The technique of examination in ophthalmology, otolaryngology and gynecology are covered by the departments concerned. This earlier introduction has the advantage of permitting the students to enter their third year clerkships in medicine and surgery with some appreciation of the fundamentals of examination of all parts of the body.

Basic full-time faculty

We are committed to the development of a basic, full-time faculty. However, because of our huge clinical responsibilities, it is necessary to supplement a hard core of full-time clinicians with a considerable number of volunteer physicians. We lack for the time being private hospital facilities, which makes it very difficult to attract and to hold, on academic salaries, faculty in surgery, its subspecialties, in radiology, pathology and anesthesiology. This lack also makes it impossible to use the device of geographic full-time to increase the size of the faculty without unduly increasing the cost.

The support of the college comes mainly from the American Jewish community. While this is a far more reliable form of support than would seem, it is subject to all the vicissitudes of "tin cup" philanthropy, and is hardly conducive to peace of mind. It is certainly no substitute for the stability which large endowment funds offer in the form of a dependable hard budget.

I have attempted to make this a factual presentation of the history, philosophy and development of the Albert Einstein College of Medicine. The college was planned on the premise that a school is only as good as its faculty. Physical facilities were designed to be particularly attractive to faculty with research interests; to facilitate multidisciplinary teaching and to make it easier to relate the basic sciences to clinical medicine. We have sought to create an environment favorable to the development of the kind of physicians we need in our modern society, and favorable to the development of medical scientists and teachers. To put it more bluntly, our goal was to add a top-flight college of medicine to those already in existence. To what extent we have succeeded only the future can tell.

El Colegio de Medicina "Albert Einstein"

El Dr. Marcus D. Kogel presenta en este trabajo un informe sobre la fundación, hace tres años, del Colegio de Medicina dedicado a Albert Einstein en *Yeshiva University* de Nueva York, que es una institución privada, de Artes Liberales, bajo los auspicios de la comunidad judía. El autor describe el desarrollo y organización de dicha Escuela: hasta la fecha queda completada ya la construcción del edificio de Ciencias, donde los estudiantes trabajan para adquirir el título de Ph.D. en Ciencias Médicas; una biblioteca y un auditorio están en construcción, y está casi acabado un dormitorio para alojar a 300 estudiantes. Miembros de la Facultad y estudiantes se dedican ya a la investigación científica en unos laboratorios bien equipados. El proyecto de la Escuela fue concebido por el Presidente de *Yeshiva University* sin contar con medios financieros, pero basándose en la firme convicción de que era un deber colectivo de la comunidad judía proporcionar los fondos para el establecimiento de una Escuela de Medicina (no-sectaria) que convertiría la joven Universidad en una institución completa, donde las Humanidades, las Ciencias y la Tecnología podrían ser enseñadas en un plan de igualdad. "Yeshiva" fue primero sólo un Seminario de Teología y no logró *status* de Universidad sino en 1945.

Recommendations for Admission to Medical School

LOUIS FEISER

MY QUALIFICATION for writing on the above subject is little more than that an unusually heavy involvement in the writing of letters of recommendation has led me to study the problem at some length and to seek techniques for coping with it efficiently. However, attendance, as one of the few nonmedical participants, at the Association of American Medical Colleges' 1956 Institute on "The Appraisal of Applicants to Medical Schools" offered a particularly favorable opportunity for learning the response of medical schools to a time-saving procedure that I have been following for about five years. A number of unsolicited comments from deans and members of admissions committees indicated that the procedure is generally accepted and liked, and consequently a description of the procedure is presented here with the thought that it may be of some guidance to other teachers of premedical science courses. Each year some 100-120 boys and girls request medical school recommendations from me because they have taken my course in organic chemistry. The prospect of preparing useful recommendations of students whom I have

known for the most part only as faces in a lecture group of 285 is rather terrifying. Some of the applicants took the course in a year when I was off duty and the lectures were given by a visiting professor, but if such students are in need of support I feel obligated to do the recommending. Our students apply, on the average, to seven medical schools, and if each recommendation were to be done individually in accordance with the widely varying stated requirements of each school the task would be impossible. Here is a way I have found for handling it.

The procedure

At the time the student is enrolled in my course, he fills out a printed record card with spaces for vital statistics, details of his study program, outside interests and activities, and a space for a photograph. During the year the section man enters data regarding progress in the course, and other entries are made at the time the student becomes an applicant for admission or for a job. The card is filed as a permanent record and may be useful 5-10 years after the student has graduated. A photograph adds to its usefulness at all stages, but usually is secured only when the student

Mr. Feiser is with the department of chemistry, Harvard University. This article previously appeared in the May 1957 issue of *The Journal of Chemical Education*.

wants a recommendation, and then only with some prodding. At the end of the year each section man writes on a blue card of the same size his characterization and appraisal of each of his students, whether or not they are at the time thinking of postgraduate work requiring recommendations. A secretary staples the two cards together and files them away.

By midsummer, or even earlier, inquiries and requests for recommendations begin streaming into my office by visit and by telephone. These are handled by a secretary, who looks up the student's card, makes sure that the section man's report is available, explains the procedure, sets a date for an interview, and requests the student to bring in at that time a stamped and addressed envelope for each medical school concerned, together with any forms, and a photograph. We have found it most satisfactory to schedule five students per afternoon at intervals of 15 minutes, with an extra 15 minutes between Nos. 3 and 4 as a coffee break or for outage. It takes some effort to keep on schedule, but this is by far the best plan for all concerned. The interview proper lasts 10-12 minutes, during which time I have decided on a rating from 1 (highest) to 5 (just barely worthy of a recommendation, probably all right). The student withdraws. I dictate a letter about him, and the next man is invited in. I recognize only a few of the students when they appear, and even so know very little about them, and by the end of the afternoon I can hardly remember which of the five is which. However, I believe that at the time of each dictation I can make a fair appraisal of the student's potentialities and that I know enough about his specified characteristics and traits to write a letter that is reasonably accurate and that has a personal flavor.

The letters are later typed, two to a stencil, and the copies are attached to forms, if supplied, and sent out as soon as envelopes and requests are received. They are not read and corrected, since typographical errors seem to be pardonable and not to detract from the sense of the recommendation. Interviews begin the week before college opens and continue, at a pace of two to three afternoons a week, until about Christmas.

The interview

Since the interview is the main basis for the recommendation, it requires both justification and further description. Is a 10-20 minute period really enough? Apart from contending that it is indeed enough because of evidence that the system works, I wish to present reasons for thinking that it should work. The teacher-student interview has special qualities not common to other interviews. Unlike an interview by a personnel agent, there is no need for anything comparable to selling the company to the prospective employee. I suspect that interviews conducted by representatives of medical schools devote some time at least to public relations and sales promotion. In my interviews, I merely ask a few suggestive questions, and the student does the bulk of the talking. Still more important differences exist in interviews by a medical man and by an undergraduate teacher. One is that the tension liable to be associated with the former is completely absent in the latter, since the student is well aware that his teacher has no authority for acceptance or rejection to a medical school. Furthermore, the student knows, or should know, that his teacher is on his side, and is trying to collect enough evidence to advocate his case in the best possible light. I would not go so far as to suppress

damaging evidence, but if a boy seems pretty weak I may, in the letter, make the most of any discoverable good points and let the admissions committees evaluate this praise as they see fit in relation to a rating of 4 or 5.

Although I know few of the students prior to the interview, a student who has listened to my lectures for a year must feel he knows me pretty well. He is thus not diverted in the interview in trying to size me up. We have a lot in common, since we have played on the same team, if in different positions. All these factors tend to make the interview flow along easily and rapidly.¹ A glance at the record card gives most of the factual data. A reference to a specific course, professor, or field of concentration requires no elaboration, because we are on common ground. The appraisal by the section man usually provides a useful lead and a number of the reports seem very well done and worthy of being quoted. Sometimes, however, the graduate student differs from the undergraduate so greatly in personality or interests that his judgment seems biased and inconsequential. Thus one useful objective of the interview is to confirm or refute either strong or weak points suggested by the section man. Another is to estimate the meaning of the student's course grades. Was this high-ranking student just a greasy grind who mastered the technique of grade-getting but did little else in college? What about this B-average

man who may have taken a calculated risk of lower grades in order to plunge into outside activities that he considered worthwhile? Is this fellow a late-bloomer of significant potential ability?

The interview is of course pervaded by the attempt to evaluate the boy's personality. Is he nice looking, attractive, friendly, of good disposition; does he talk well, does he smile, does he have a sense of humor? In evaluating personality, as well as general make up and aptitude for medicine or about anything else, it seems to me helpful to explore the nature and intensity of the student's interests. One index is the course program elected. Premedics nowadays are apt to follow the rather prevalent advice to elect a nonscience major even though they have high aptitudes for science, and in such a case there may be something significant in the nature of the field selected and the extent to which it developed into a really deep interest. Majoring in science may appear to science teachers a reasonably good way for a boy to prepare for medicine, but admissions committees these days like some evidence that a science major has an adequate interest as well in the humanities. Thus it seems worthwhile to include a list of cultural courses a boy has elected beyond the required minimum, particularly since those taken in the senior year will not show on the transcript, and to list the courses by names that will be understandable without recourse to a catalog. Incidentally, science teachers may as well accept the fact that medical schools pay much more attention to the overall course record than to grades in specific science courses, although instances do exist of specific courses at specific colleges that are regarded as offering a particularly reliable index of aptitude for medicine.

¹Compare comments by 1956 medical school freshmen regarding interviews conducted by medical schools: "Interviewer lacked interest . . . unfriendly, no personal interest . . . asked irrelevant questions . . . attempted to confuse student . . . was sarcastic . . . did most of the talking."

Out-of-course interests are particularly important. The nature of the interest does not matter much, provided it is sincere and strong. Any one of a variety of categories of athletics, music, mechanics, writing, or administration adds considerably to a boy's general attractiveness. Sometimes an interview discloses a hobby which would seem silly if listed in an application, but which turns out on questioning to be perfectly sound and sometimes indicative of surprising expertness; examples: skin diving for lobsters, gardening, fishing, cooking. Questioning as to how the student has utilized his summer vacation time often brings out unconventional activities of interest and sometimes indicative of considerable enterprise. Even though a boy has done no more than farm, build roads, drive a truck, sell ice cream, deliver mail, collect bills, or promote dog track betting—or even though a girl could do no better than work as a waitress, or bar girl, or riveter—the reactions of these students to the social-relations situations involved are sometimes illuminating. Some students have the enterprise to land exciting jobs in research laboratories. Some work their way, by music, into interesting programs often involving foreign travel. One premedic hitchhiked to California by himself and queried each driver about his experiences with doctors; the uninhibited replies led the boy to try to do a better job than the M.D.s sampled.

I usually ask the student when and why he decided on a career in medicine, although discussions with medical men have convinced me that little significance can be attached to the obviously well studied statement about motivation. However, the time of the decision may be of significance in interpreting the course program and grades.

Questions of the types indicated can be asked and answered in a short time. A period of 10-12 minutes usually seems adequate to me, and there have been no indications that students feel slighted or cut off.

Correlation with acceptances.

As stated at the beginning of this article, representatives of a number of medical schools have stated that my short-cut system of presenting recommendations is perfectly acceptable to them. Several have expressed the opinion that a few brief characterizing sentences are of more help than a completed questionnaire, or than a letter padded with phrases such as "It is a pleasure to me to write to you about one of our seniors, a young man whom I do not happen to know but who has made the happy choice of a career devoted to the benefaction of mankind."

Some evidence that my ratings correspond reasonably well with the more extensive evaluations by admissions committees is afforded by the data of the accompanying table. The classification of schools is arbitrary, applies only locally, and is subject to some inaccuracy. The "school of first choice" is the local school currently preferred by the great majority of our students, but not by all, and a few accepted by this school go elsewhere because of a fellowship or for other reasons. Six schools are arbitrarily grouped as those of second choice because, on the average, they seem to be held in this regard by Harvard and Radcliffe applicants. The figures for students not accepted do not include juniors but in some cases may include boys drafted for military service. For the year 1953-54, figures are included (in parentheses) for early acceptances. There seems to be some correlation between grades in

Average Ratings (Rt.) and Chem. 20 Grades (Gr.)

Accepted by schools of	1953-54			1954-55			1955-56		
	No.	Rt.	Gr.	No.	Rt.	Gr.	No.	Rt.	Gr.
1st Choice	26 (23 ¹)	1.4	89	24	1.1	89	17	1.4	86
2nd Choice	45 (26 ¹)	2.2	83	36	2.1	83	34	2.4	83
3rd Choice	28 (25 ¹)	2.8	79	35	2.2	80	24	2.4	81
Not accepted	11 (43 ¹)	3.2	74	16	3.3	76	19	3.6	79

¹Acceptances to December 23.

the organic chemistry course and acceptances, but it is not as good as that between ratings and acceptances. The rating, based upon a brief interview, thus seems to provide a reliable basis for helping students gain admission to appropriate schools.

Recomendaciones para la admisión a las Escuelas de Medicina

Este artículo es un informe en el que se describe detalladamente un procedimiento que sirve para simplificar considerablemente el problema de las recomendaciones que son requeridas de los profesores por aquellos estudiantes que desean entrar a una Escuela de Medicina. El Autor, Profesor de Química de la Universidad de Harvard, después de haberse enfrentado al final de cada curso con demandas de recomendación de unos 100 a 120 de los estudiantes que habían asistido a su curso de Química Orgánica (de algunos

de los cuales apenas podía recordar la cara), solucionó ese problema mediante un fichero en el que, desde el principio del curso, se reúnen todos los datos pertinentes a cada uno de los estudiantes. Este fichero es mantenido al corriente con ayuda de un secretario y de los instructores auxiliares, y gracias a él, el Profesor se halla provisto, en cualquier momento, de toda la información que necesita para dar una recomendación justa a cualquier estudiante que la solicite. Ese procedimiento, que el Prof. Fieser está siguiendo con éxito desde hace 5 años, llamó la atención, como solución simple y eficaz de un problema general, en el Congreso de 1956 de la *Association of American Medical Colleges*, dedicado a los problemas relativos a la evaluación de los candidatos para admisión a las Escuelas de Medicina.

* * *

Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.

College of Medicine, University of the Philippines Semi-Centennial 1957

AGERICO B. M. SISON, ARTURO B. ROTOR AND PABLO O. CAMPOS

SOME 50 years ago a group of Americans and Filipinos got together and laid the foundation of a superstructure that was destined to be one of the most outstanding monuments of Filipino-American cooperative effort. In an area of 7.7 hectares in the Ermita district of Manila, this group of "dreamers" envisioned a medical complex of classrooms, laboratories, hospital wards and research units.

These American and Filipino visionaries have since then gained outstanding recognition in their respective lines. There was W. Morgan Shuster, Secretary of Public Instruction of the civil government during the American rule; Dr. Paul C. Freer, who was to become the first dean of the medical school; Dean C. Worcester, Secretary of Interior who, as official author of the plan, was to be mocked and ridiculed for what the public called "Worcester's dream." On the Filipino side, there was Dr. Pardo H. de Tavera, an important figure in the Philippine Revolution

and an internationally recognized scholar.

William Howard Taft, later President of the United States but at that time the civil governor of the Philippines, approved the idea, saying, "I regard the school and the hospital as of the highest importance in the development of the Philippines. If I could visit the Philippines again I should hope to see the school, hospital and laboratory all running close together, and that the ideal painted in words so often by the Commission will then be realized."

One by one

The buildings were constructed one by one. The Bureau of Government Laboratories was established on July 1, 1901, and in 1905 the Bureau of Science was created and absorbed the former. Dr. Paul C. Freer became its first director. By this time the construction of the medical school was underway. This school was to be an outgrowth of the educational system instituted throughout the Philippines by the Philippine Commission and was a natural development of the Bureau of Science and the Bureau of Health.

The movement toward the establishment of the medical school had

Dr. Sison is dean and professor of medicine; Dr. Rotor is associate professor of medicine; and Dr. Campos is assistant resident in medicine, all at the University of the Philippines College of Medicine.

its origin at the Second Annual Meeting of the Philippine Islands Medical Association (founded on September 15, 1903) held in 1905. At this meeting Dr. William E. Musgrave, presented statistics showing the great need for physicians. His survey revealed that there was only one physician for every 20,209 inhabitants of the archipelago, and one for every 430 square miles of territory. Small-pox, bubonic plague and cholera were raging in the country then, and medical service was woefully needed. Thus the committee on public policy and legislation of the association recommended the establishment of a medical school.

School established

On June 10, 1907 the Philippine Medical School was finally established in accordance with Act 1415 of the Second Philippine Commission, by authorization of the United States government. At the same time, Act 1632 was enacted in order to give the future graduates of the medical school the right to practice medicine and surgery in the Islands.

The medical school became a part of the University of the Philippines on December 8, 1910 when the latter was organized. Thus the supervision of the school passed to the board of regents of the university. Then in accordance with Act 1870 the name of the school was changed to College of Medicine and Surgery. This was shortened later, on March 1, 1923, to College of Medicine.

The medical school was first housed in the old building of the School for the Deaf and the Blind while its building and the edifice of the Philippine General Hospital were under construction. On July 1, 1910 the school was transferred to the new medicine building. Two months later,

on September 1, 1910, the Philippine General Hospital, then with a 350-bed capacity, was opened to the public, primarily for poor patients. The construction of the latter was made possible through the joint efforts of President William H. Taft; Dr. John R. McDill; Governor General William Cameron Forbes; former Commissioner of Health Major E. C. Carter, Right Rev. Charles H. Brent; Director of Health Dr. Victor G. Heiser, among others.

At first the hospital was a division of the Bureau of Health under the Department of Interior. Later it was made a separate bureau and placed under the Department of Public Instruction. In July 1939, it was put under the Office of the President of the Philippines. By virtue of Executive Order, in 1947, the Philippine General Hospital was finally placed under the University of the Philippines.

Formative years

Leading American professors and scientists guided the medical school and hospital during its formative years. A program of fellowships to the United States and Europe for deserving members of the faculty was developed. This program provided an adequate staff for teaching and research, and it insured the maintenance of the high standards set by the American preceptors. From the Bureau of Science (now called the Institute of Science and Technology) experienced men joined the ranks of the faculty and contributed their share. Among the prominent American physicians and scientists were Dr. Paul C. Freer, Dr. William Musgrave, Dr. Richard P. Strong, Dr. Victor G. Heiser, Dr. Harry T. Marshall, Dr. John R. McDill, Dr. F. W. Dudley, Dr. E. H. Ruendiger, Dr. Robert B. Bean, Dr. Philip Garrison,

Dr. Alfred Ogle Shaklee, Dr. C. Banks, and Dr. Paul Clements. There were also Filipino pioneer educators in the group, including Dr. Fernando Calderon, Dr. Luis A. Guerrero, Dr. Ariston Bautista y Lin, Dr. Jose Albert, Dr. Gregorio Singian, Dr. Mariano Vivencio del Rosario and Dr. Baldomero Roxas. As the years passed, more Filipinos than foreigners joined the group, subsequently entirely guiding the school. Filipino fellows were sent abroad and American specialists were invited by special contracts. A strong staff was developed and maintained so that today the faculty/student ratio is 1:2.8 (167 faculty members to 469 medical students). The Rockefeller Foundation, the Kellogg Foundation, the China Medical Board of New York, manufacturing drug companies such as Hoffman La Roche, Eli Lilly Company, and Chas. Pfizer Company, made substantial grants to the University of the Philippines medical school.

The school had Dr. Paul C. Freer as its first dean. Dr. William Musgrave followed. Then came Dr. Fernando Calderon, Dr. Antonio G. Sison, and Dr. Agerico B. M. Sison (the present dean). All of them contributed to maintaining a high standard of medical education, expanding the physical plant, strengthening the faculty and promoting research in the medical center. A definite and radical change was introduced in the teaching of the clinical subjects in 1920 when practical and bedside teaching was started, enabling active student participation.

Becomes member of AAMC

The efforts of the leaders of the medical school in setting and maintaining a high standard of education were rewarded when the school was

registered in the Department of Education of the State of New York and was formally accredited as a regular member of the Association of American Medical Colleges on June 1, 1941 following a three-month survey of its educational facilities and resources by Dr. Fred C. Zapffe, secretary of the Association. After the granting of independence to the Republic of the Philippines on July 4, 1946, the school became an affiliate member of the Association. The school was re-registered in the Department of Education of the State of New York on September 1, 1948 and has been a member of the Association of American Medical Colleges in good standing up to the present time.

Physical plant

The expansion of the physical plant was accomplished gradually. To the main buildings of the school and hospital, the *\$200,000 Annex Building was added.

The Institute of Hygiene building was constructed in 1932 with a Rockefeller Foundation grant amounting to \$302,000. In 1924 the Guazon Memorial operating room and amphitheatre were built through the joint efforts of Dr. Maria Paz Mendoza-Guazon, professor of pathology, and the University of the Philippines, to honor the memory of Dr. Potenciano G. Guazon, a former professor of surgery and head of the department. The only stipulation of Dr. Mendoza-Guazon's gift was that the operating room shall be used only for poor patients.

Expansion

In 1938 a four-year program of expansion and modernization of the Philippine General Hospital was started by the Philippine Common-

*Where \$ is used, Philippine peso is meant.

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wealth Government. The amount of \$2 million was appropriated to carry on further the development of the hospital towards its final capacity of 1500 beds as originally contemplated by the Philippine Commission, providing for a new maternity pavilion, private wards, out-patient department, X-ray unit, library, lecture halls, residents' quarters, offices for members of the hospital staff, and laboratories for pathology, chemistry, metabolic and clinical research.

The government also appropriated in the same year \$400,000 for the creation of the Cancer Institute, a unit of the hospital, but only the building was completed, because of the outbreak of World War II.

Wartime

Despite the paralyzation of practically all the university activities during the Japanese Occupation (1942-45), the medical school continued to function throughout the entire period. In the liberation of Manila by the American forces in February 1945, the medical school and hospital were practically razed to the ground between the burning of Manila by the Japanese and the shelling by American forces. With the aid of the Philippine and United States governments, the school and hospital were gradually reconstructed, and in six months classes were resumed. The War Damage Commission, the Mutual Security Agency (later the Foreign Operations Administration, and still later, the International Cooperation Administration), and the China Medical Board of New York, helped in the reconstruction of buildings and the procurement of equipment, vehicles, apparatus and books. The building which was used for communicable diseases before the war was reconstructed and renamed

Quisumbing Hall in honor of Honorable Quisumbing, an outstanding student leader and intern who gave his life that others may live. He was one of the volunteers who stayed in the hospital during the shelling of 1945 and he was mistakenly shot by an American soldier while trying to get supplies from the remote supply building. He died on February 17, 1945.

Improvements

When the University of the Philippines transferred to Diliman, Quezon City, in 1949 the College of Medicine stayed behind in Manila. During the last few years the grounds of the medical school and hospital were vastly improved. A three-story Medical Library and Science Hall Building was completed in March 1953. This library was built with a US \$200,000 grant from the China Medical Board of New York. The library and science hall are air-conditioned. The library has room for 150,000 volumes, and at present has more than 20,000 volumes and receives 191 current medical journals. It has facilities for microfilm reading. It has been the recipient of books and journals from donors in the Philippines, the United States, Europe and Asia. However, when the old library was completely destroyed in the war, most of the earlier local medical and scientific journals, clinical records, papers and other irreplaceable documents were lost forever.

Departments

When the school opened there were 10 departments, namely, anatomy, chemistry, physiology, pathology and bacteriology, pharmacology, medicine, surgery, obstetrics, pediatrics and hygiene. In addition, there were

courses in dermatology and eye, ear, nose and throat specialties. At present there are 12 departments, namely, anatomy, biochemistry, physiology, pathology, pharmacology, medicine, surgery, obstetrics, pediatrics, hygiene, ophthalmology and otorhinolaryngology, and gynecology.

It should be mentioned that in the University of the Philippines a School of Tropical Medicine was established in 1912, but since very few physicians took advantage of the opportunity to take a postgraduate course in tropical medicine, it had to be closed in 1919.

Dermatology was taught as a distinct specialty in the department of medicine in 1911 by Dr. Stanley and Dr. Perpetuo Gutierrez. By 1919 the interest in neuropsychiatry increased so much that it was taught as a separate subject. Practical instruction was received by the students at the National Psychopathic Hospital (now the National Mental Hospital). At an earlier period the insane department of the San Lazaro Hospital was used for practical teaching. A department of medical jurisprudence and ethics was created in 1915 with Dr. Sixto de Los Angeles as head. In 1919 the head of this department became the chief of the medico-legal department of the Philippine General Hospital. On March 10, 1922, a Philippine Legislative Act provided that the department of legal medicine, U. P., shall become a branch of the department of justice. On March 3, 1939 the Department of Legal Medicine of the school was abolished and its functions transferred to the medico-legal section of the Division of Investigation of the Commonwealth Government.

Then a course on history of medicine and forensic medicine, as well as ethics and medical economics, was instituted. At present history of medicine is one of the disciplines under

the department of medicine.

The department of hygiene formed the nucleus of the School of Hygiene and Public Health, which was organized in 1932. At this time a separate building was erected under the sponsorship of the Rockefeller Foundation, and in 1938 by resolution of the Board of Regents the name was changed to Institute of Hygiene. Dr. Hilario Lara was the first Director of the Institute; in 1952 his official title was changed to dean. As presently constituted the Institute of Hygiene as a whole serves as the department of hygiene of the College of Medicine, with the dean of the Institute acting as the head of the department.

The eye, ear, nose and throat specialties were not constituted into a department until May 1911, when the department of ophthalmology and otorhinolaryngology was created as a separate and distinct unit.

Gynecology was at first incorporated in the department of surgery. However, in 1922, by action of the Board of Regents the department of gynecology was created.

As early as January 10, 1911 there was an electro-therapeutic department. Installation of the first X-ray unit in the country was done by Mr. A. M. Louis in 1919 in the Philippine General Hospital, at which time the radiology and physical therapy department of the hospital was established. This department has taken charge of the course in radiology and physical therapy offered to students in the department of medicine. When the Cancer Institute was erected before the war, Dr. Paterno Chikiamco and his staff ran the institute and started studies in cancer, including X-ray and radium treatment. The work was interrupted by World War II, and has not been resumed for lack of funds.

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Hospital laboratory work was first done by the department of pathology and bacteriology. However, later a department of laboratories was established. The department was first accommodated in cabins behind a dormitory. It was transferred to various parts of the hospital, and today it is divided into two units, the North Laboratory and the Central Laboratory.

Admission

The only requirements for students who sought admission to the medical school at the beginning were good moral character, the completion of the high school course, and the passing of an examination given by the faculty covering the following subjects: Mathematics (arithmetic, college algebra and plane geometry), command of the English language, literature (English, French, German or Spanish), history (general history and history of the Philippines), Latin grammar and the four books of Caesar (which may be substituted by reading knowledge of French or German) college physics, chemistry, botany and zoology. The examination was conducted either in Spanish or in English at the pleasure of the candidate. Final selection was made on the basis of scholastic merit and regional representation. The enrollment at first was small, the first group of graduates being only eight students.

As the years passed the number steadily increased till it reached the staggering number of more than 200 first-year students in 1936. Alarmed by this tendency to mass enrollment, a method of selection was instituted in the academic year 1937-38. Since then not more than 100 students were admitted in the freshman class because current facilities do not allow a larger class.

The basis for selection became

more rigid as the years passed by in order to insure an adequate training and education of medical students. In addition to the completion of the high school course and the validating examination as a prerequisite for admission, a two-year preparatory course was included. This entailed the study of biology, physics, mathematics, chemistry, languages, history, and social science leading to the degree of Associate in Arts, which conformed to the minimum admission requirements of medical schools in the United States.

In 1954 the preparatory course was increased to three years. The additional year was deemed necessary in order to allow more time for social sciences and other non-science courses. At present the selection of applicants is based on scholastic standing, a personal interview by a member of the Admission Committee, moral character and an aptitude test. That this laborious and rigid selection of students has paid off is shown by the failure rates which dropped from 38.5 per cent in Class 1936 through 1941 to 15.08 per cent in Classes 1951 through 1956. During the early years a rotating internship was not prescribed for graduation, but gradually the curriculum was modified to make the fifth year more practical by requiring, at first a year of clinical clerkship (fifth year), and later on a year of clinical (fourth year) and a 12-month rotating internship (fifth year) in the various clinical departments, so that on graduation day the new physicians will be more confident and better prepared to undertake the practice of medicine.

Up to the year 1920 the graduates of the medical school were exempted from taking the licensing board examination, which was required of other medical schools. Beginning in

the year 1921 all medical graduates were required to take the licensing board examination before engaging in the practice of medicine.

Courses

A comparison of American and Philippine medical education courses shows that the American student spends at present eight years in the elementary, four years in high school, four years in college, and four years in the medical school; after this he takes up internship for one or two years before taking the licensing board examinations. This gives a minimum total of 21 years of educational preparation. The Filipino student, in comparison, spends four years in the primary courses, three years in the intermediate course, four years in high school, three years in college, five years in the medical college including one year of internship, making a total of 19 years of study before taking the licensing board examination. This academic program seems to be working satisfactorily. Graduates of the U. P. College of Medicine are the most sought after of all foreign medical graduates by American hospitals. As a matter of fact, some American hospitals will not accept graduates from medical schools in the Philippines except those coming from the University of the Philippines.

As early as 1925 there were attempts to lower the requirements for admission to the medical school and modify the medical curriculum so as to produce medical graduates of lower standards in order to provide the rural communities with some form of medical service. The Philippine Medical Association in a resolution adopted on May 6, 1925, recommended that the medical school organize another school for the pur-

pose of training medical graduates of lower quality for this purpose, but the authorities of the school objected to the plan, for it subscribed to the views of modern medical pedagogy that to produce "second class" doctors is to endanger the health of the nation. As Dr. Loeb expressed it, "*even if there may be a delay in the establishment of an equilibrium between medical practice in the city and country, it is unthinkable to adopt any plan that would lower the efficiency of the physician in recognizing and treating disease.*"

Cost

The cost of medical education in the Philippines is high, as it is anywhere else. In a study by Dr. Agerico B. M. Sison in 1953 the estimated cost of the entire medical course (five years) was \$9,250 or \$1,850 per academic year. In order to help needy and deserving students the government and school undertook the task of giving fellowships and scholarships.

In 1907, the Philippine Commission gave stipends to selected students, one from each province. The University of the Philippines subsequently provided for entrance scholarships, university and college scholarships. Private grants such as the Bailon-De la Rama scholarship, Winthrop-Stearns scholarship, Metro Drug Corporation scholarship, and the Joaquin Pleno scholarship were offered by private philanthropists. In the faculty there were also philanthropists such as Dr. Ariston Bautista y Lin of the department of medicine and Dr. Mariano Ocampo of the department of physiology and biochemistry. A student loan board was created in the university to help needy students. The health of the students and faculty members is at-

tended to through an infirmary service.

General hospital

The Philippine General Hospital was conceived and organized to provide facilities for the clinical instruction of the students of the college of medicine. The professional staff of the hospital are primarily members of the faculty of the medical school and receive no compensation from the hospital, except the house staff who are allowed quarters, subsistence, and laundry allowance.

In 1957 the hospital capacity is 802 beds, although when overloaded it has accommodated almost 1000 patients. There are 741 public beds and 142 bassinets. The hospital is divided into different departments: Medicine (including neurology, psychiatry, metabolic, cardiovascular, dermatology, gastroenterology, arthritis sections; Surgery (including urological surgery, orthopedics, thoracic surgery, neurosurgery, plastic surgery, and anesthesia sections); ophthalmology and otorhinolaryngology, pediatrics, obstetrics, gynecology, laboratories, radiology, and physical therapy. There is an out-patient department. These departments of the hospital serve as the Clinical Departments of the College. The rate of admission has steadily increased with the patients coming from the city and the provinces. In 1955, 22,677 patients were admitted. The Receiving and Emergency Section had 52,276 patient-visits while the radiology and physical therapy department had 73,876 patient-visits. In the Out-Patient Department 800 patients are seen every day. In 1955 there were 192,859 patient-visits at the Out-Patient Department. In 1911 there were 3,239 hospital admissions and 12,012 patient-visits in the Out-Patient Department.

As early as 1915 a Social Service Unit was instituted at the hospital. Obstetrical home care, pediatrics follow-up, and home treatment were administered by physicians and nurses of the institution. In 1939 there was an extension of the social service functions when seven nurses from the Social Welfare Department of the government joined in the social service activities of the hospital for screening the applicants for admission as charity patients. The work was interrupted during the Japanese occupation. Reorganization of the Social Service Unit was done on October 1, 1955 when a workshop for occupational and diversional therapy was started. Home care was resumed in August 1953. In September 1956, Speech Therapy was instituted. The Social Service Unit cooperates with the physical therapy, neurology, neurosurgery and orthopedics sections in the rehabilitation of disabled patients.

Cognizant of the importance of nutrition, the hospital administrators at the start employed nurses to look after the quality of food in the kitchen. In 1952 professional dietitians were employed for the first time in the hospital. The Dietary Department of the hospital was reorganized to conform with modern trends.

Semi-centennial

The College of Medicine, University of the Philippines, celebrates its semi-centennial this year, 1957. The nebulous ideas of a group of American and Filipino dreamers have not only been realized but have been translated into one of the most effective instrumentalities of the Republic of the Philippines for bringing the nation into the 20th century. During its 50 years of unbroken service, it has trained 2,246 physicians

who have set the standard for medical practice in the Philippines. Many of these graduates have since then not only become active practitioners in the rural areas but also occupied government positions where national policy is established and implemented. Research carried on in the college of medicine by its staff has advanced the frontiers of medical knowledge in the Philippines. In public health, its graduates can cite achievements that are unique in the Orient. Bubonic plague, smallpox, and cholera have been wiped out; the graduates in the last 20 or 30 years have not seen a single case of these diseases. The water supply of Manila is one of the safest in the world. The methods employed for the eradication of malaria has attracted investigators from other parts of the Orient. The Bataan rice enrichment program designed to wipe out beriberi was the first mass survey and enrichment experiment in medical history and has become a model for similar projects in other countries. The *Acta Medical Philippina*, the official journal of the College of Medicine containing research work of faculty members is on the exchange list of similar journals in all the most important medical centers in the United States, Europe, South America, and the Orient.

The first 50 years of the College of Medicine have been busy years indeed. However the theme of its Semi-Centennial is "Looking Forward," not "Looking Backward." It is of course appropriate to pause for a moment and relax in the glow of one's achievements, but there is work to be done for the next 50 years.

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El Colegio de Medicina de la Universidad de Filipinas

En el presente trabajo se describe detalladamente el desarrollo de la Escuela de Medicina de la Universidad de Filipinas en Manila, la cual fué fundada hace medio siglo por un grupo de americanos y filipinos. Esta escuela representa hoy, pese a las muchas dificultades que surgieron en los primeros años de su existencia, y sobre todo, pese a los estragos causados por la última guerra y la ocupación japonesa de 1942-45, una de las mejores instituciones de enseñanza médica: tiene un profesorado excelente, reunido gracias a los fondos proporcionados por algunas de las grandes Fundaciones americanas, y gracias también a un sistema de becas para estudiar fuera del país, y a que se invita a eminentes especialistas de otros países; 12 Departamentos; un hospital con cerca de 1000 camas (en el que, en 1955, fueron atendidos 22,677 pacientes), con un Departamento de pacientes externos (en el que se tratan un promedio de 800 personas diariamente); un Departamento psiquiátrico, y laboratorios provistos con todos los aparatos modernos para

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la investigación científica. Un rasgo extraordinario de dicha Escuela es el número de miembros de la Facultad en relación con el de estudiantes: 167 profesores para 469 estudiantes médicos. Según señala el autor, hay que considerar la fundación y desarrollo del Colegio de Medicina de Filipinas como un

hecho destacado que pone de manifiesto la cooperación filipino-americana.

* * *

Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.



Dr. Bowers Now Journal Editor

EFFECTIVE October 1, Dr. John Z. Bowers, dean of the University of Wisconsin Medical School and chairman of the Editorial Board of the Association, became editor of this Journal.

Miss Neva V. Resek is now assistant editor, replacing Mrs. Barbara M. Peterson. Mrs. Peterson, who has served so effectively as assistant editor for the past three years, is resigning to devote full time to her family.

All manuscripts should henceforth be submitted in duplicate to Dr. Bowers, c/o The Journal of MEDICAL EDUCATION, University Hospital, Madison, Wisc. The publications office will remain at 2530 Ridge Ave., Evanston, Ill.

Multi-Disciplinary Teaching of Human Ecology in the First Year of Medicine*

EUGENE A. HARGROVE, GEORGE C. HAM AND WILLIAM L. FLEMING

THE MEDICAL faculty of the University of North Carolina inaugurated in 1952 an experimental course entitled "Introduction to Clinical Medicine." The goal was to familiarize first year medical students with a concept of man which would include his phylogenesis considered organically and culturally; his ontogenesis expressed biologically, psychologically and socially; and his adaptive functions manifested in a physical and social environment. Time was made available for the course to meet two hours per week for a total of 72 hours during the first year. The methods of teaching the course have undergone constant reappraisal and revision although the goals have remained the same. For the first two years it was under the auspices of the departments of preventive medicine and psychiatry and two of us (Ham and Fleming) alternated weekly sessions. We presented ecologic principles by interviewing patients before the class and then

discussing concrete biologic, psychologic and social factors involved in the patient's illness. The students participated in these discussions which might include the altered physiology of an asthmatic patient, complex marital relations, effects of illness upon the family, or hospital insurance, etc.

The course was expanded in 1954 with the aid of a Public Health Service teaching grant to include 12 preceptors who met with the class each week; 11 were physicians from different medical specialties and one was a social scientist. The physicians included the dean and represented general practice, internal medicine, pathology, pediatrics, physiology, preventive medicine and psychiatry. At the weekly exercises one of the physicians interviewed a patient who was selected at random from the hospital or clinics. Following the interview the class either remained together for general discussion or formed into groups of six students to meet with one of the preceptors

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Multi-Disciplinary Teaching of Human Ecology

for informal spontaneous discussions about the patients. The social scientist visited each group several times during the year. The small groups provided the students with an opportunity to become better acquainted with preceptors and to participate more fully in the exercises. Rotation of student groups to different preceptors each quarter afforded students contact with representatives of several medical disciplines. When the entire class participated in discussions each of the preceptors was in a position to contribute his unique concepts, approach and viewpoint to the patients' problems and to the students' views and questions. The purpose of this kind of working communication between teacher and teacher, student and teacher was designed to provide the students with a multifactorial viewpoint of "disease," and indicate the role of biologic, psychologic and social adaptive functions of each patient. However, these aims were not easy to implement. Some of the preceptors felt that they were insufficiently trained to teach broad ecologic principles; others admittedly were not comfortable teaching social, psychologic and cultural aspects of disease and began to emphasize physiologic mechanisms of defense. Many of the preceptors were dissatisfied with their functioning and suggested we plan a course definitely focused on behavioral science. Thus in 1955 further changes were made in the teaching plan and the name of the course changed from "Introduction to Clinical Medicine" to "Human Ecology."

Procedure

We have now taught the course in the following way for two years. A group of six preceptors representing anthropology, preventive med-

icine, psychiatry, psychology, social case work and social science met each week with the entire class of 66 students. We introduced the course by discussing for two hours changing concepts in the practice of medicine. Then the biologic development of man was presented for 10 hours. Next came 10 hours of discussion on the cultural development of man. This work, including an examination, occupied the first quarter. In the second quarter, we presented specific methods which the physician has available to study and evaluate the total functioning of man. Here we introduced principles of interviewing, physical and laboratory examinations, social case work, psychologic studies and contributions from the social sciences. In the last quarter we presented randomly selected patients to be interviewed before the class. In the discussions which followed, we attempted to synthesize all the viewpoints.

Usually, each two-hour period began with a general presentation conducted by one of the preceptors. Following this the class remained together for general discussion of the material; both students and preceptors contributed different questions, concepts and viewpoints. It was gratifying to see the students' vigorous participation in these groups. At various times throughout the year the class formed into small groups to discuss the material with one of the preceptors. These informal groups allowed the students maximum participation but we found that exclusive use of small groups emphasized a single or fragmented approach to patients' problems in contrast to the multifactorial approach of large group discussions.

Demonstration techniques

We utilized live demonstrations of

healthy and maladapted people from infancy to senility to illustrate the spectrum of human development. In addition to interviewing these people, limited didactic presentations were employed. Extensive use was made of multiple audio-visual aids, including sound movies, T-V kinescopes, prepared slides, tape recordings, opaque projectors and other special devices. These techniques permitted the presentation of data, prepared by experts, in a far more convincing manner than had been possible by the best lecturers.

For example, one of the discussions centered around the concept of the body functioning as a biologic unit, constantly driven by a variety of motivations, constantly adapting, and reflecting this adaptation by sensitive physiologic adjustments. One of the students was connected to a polygraph which recorded his pulse, blood pressure and respiration for a short period. These measurements were projected onto a large screen in front of the class where fluctuations in the student's physiology were seen. A base line was established after which various stimuli were introduced, such as pain, fear of pain, inhaling amyl nitrite, solving arithmetic problems, etc. One amusing incident occurred when the student was shown color slides of nude women. His blood pressure responded so vigorously that the recording arm jammed at the upper limits of the graph.

In another session the evolutionary adaptive functions of the central nervous system were traced and correlated with potential for learning. Following this, a student volunteered to perform simple intellectual tasks before the class. The student put together a simple puzzle, placed odd shaped blocks in the proper slots and solved simple problems on the black-

board. Then a mentally defective patient was introduced to the class. After he was interviewed, the patient attempted to repeat the tasks which the student had performed but he was totally unsuccessful. By this illustration some important principles pertaining to learning and recall became apparent to the class. Among those highlighted were the physiologic limits of learning, various rates of learning, and reliability in regard to history taking.

The discussions on the cultural development of man were led by an anthropologist who began by tracing the emergence of human society and man's cultural heritage. The impact of forces of culture on human behavior was developed. Examples from the customs of preliterate societies as well as from segments of contemporary American society showed how cultural forces may influence physiologic and psychologic adaptive functions. Adaptive and maladaptive features of entire cultures were emphasized. Some of these examples were drawn from movie excerpts and others from presentations of patients from deviant cultures such as the snake cult or from subgroups such as Negro or Indian.

Second quarter

In the second quarter the several preceptors presented their specialties as related to human ecology. Once again live demonstrations, movies or patients were utilized to illustrate points of view. For example, when the physician discussed principles of biographic anamnesis, he demonstrated this by an actual interview with a patient.

The internist who discussed physical and laboratory examinations did not attempt to teach the techniques involved but presented a general

philosophy or attitude toward these studies. He described their place in evaluation of the patient and showed how the objective evidence from these examinations indicated biologic attempts to adapt. He illustrated his concepts by introducing a patient with diabetes to show how laboratory findings added confirmation to historical data. After interviewing the patient he demonstrated a simple test for sugar in the urine. Later he examined a patient with jaundice to indicate how physical signs may represent attempts at adaptation rather than disease itself.

The social caseworker introduced an additional method of gathering and evaluating data. The worker visited the home of a patient accompanied by two students who took pictures of the family, the home and made tape recordings of the interviews. These data were shared later with the class. There were several striking incidents which showed the social worker's role in contributing to our understanding of the patient's current life situations. One patient had previously been interviewed before the class at which time she had presented herself as a stylishly dressed young woman; she indicated her financial situation was modest but not distressing. The social worker's presentation a week later surprised everyone. The patient's economic situation was extremely poor and the photographs of her house showed a tumbling down, unpainted shanty.

Following the series by the social worker, the psychologist presented particular methods in his field for evaluating psychologic adaptive functions. He demonstrated, with specific projective tests, ways by which mental mechanisms of defense were measured. Patients about whom a good deal was known biologically

were tested psychologically to show what additional facets of information were available. The students took the Minnesota Multiphasic Personality Inventory and the Thematic Apperception Tests in order to acquaint them first hand with the process of psychologic evaluation. The results of these studies on the students (collectively but not individually) were used as a basis for class discussion.

The social scientist then presented pertinent basic principles in his field which he employed as a frame of reference for understanding the attempts of patients to adjust to current life situations. He analyzed patterns of social behavior, both universal and local, and showed how specific social customs may facilitate or inhibit adaptive capacities of the patient. For example, he used grief reactions in several patients to illustrate how social customs influence the expressions of emotion and how socially accepted ways of expressing emotion may create tension and thus be maladaptive for the individual or the culture.

Third quarter

During the third quarter we presented randomly selected patients at each session in an attempt to synthesize the several approaches and emphasize health and disease as relative concepts. The day before the class each student received a protocol of the patient's hospital history. On the day of the class a patient was interviewed for an hour. Using this material and the protocol, the students and preceptors discussed adaptive functions of the patient and attempted to trace the chain of events which led to the patient's maladaptive behavior. For example, a patient was presented with hyperthyroidism. The spontaneous discussion of students and preceptors covered the fol-

lowing topics: evolutionary adaptive functions of the thyroid gland; its role in growth, development and maturation; the emotional reactions of the patient; occurrence of hyperthyroidism after emotional shock; the patient's social environment; the psychologic defense mechanisms as noted in the projective tests, and cultural aspects of goitre. Finally the signs and symptoms of hyperthyroidism were viewed as attempts of the patient to meet demands for growth, development and maturation which were no longer regulatory but maladaptive.

Throughout the course we involved the students as much as possible. We encouraged their participation in the discussion groups as well as in the actual study of the patient. More than half the class volunteered to go on field trips with the social worker or to observe the internist, psychiatrist, psychologist, or social case worker examine patients prior to presentation. The students brought to class their own reports and experiences of these field trips and examinations of patients. The interest in the course increased as students observed their classmates participating in these studies. An attempt was made to sustain interest in a particular patient by providing followup contacts and studies. Many of the patients seen by the class were followed at regular intervals in the general clinic and the students turned to a resident for further information and patient contact. These experiences were supervised by one of the preceptors and the student reported them to the class for discussion. Most of the patients, whom the class had previously observed, returned at the end of the year for followup evaluation.

A number of observations were made during the teaching of the present course. Many students came to

medical school with keen but often unsophisticated interest in the patient. Some, well grounded in physical or biologic sciences, had little understanding of personality and interpersonal forces and thought of reaction patterns in a limited, mechanical ways. Others thought of illness as a simple relationship between cause and effect and many looked upon ill health as an isolated biologic happening in the patient's life.

We discovered, however, that there were potentialities and motivations in students which could be developed and utilized to widen their horizons and increase their understanding of human behavior. Each year it was a surprise to find that a little well placed clinical material went far in stimulating this understanding. Although we believe this course was a broadening experience for the students, we do not know exactly what happened to their attitudes about patients. We used variations of the Thematic Apperception Test and two "attitude" scales in an attempt to evaluate this learning experience but these data have not been completely analyzed.

The course is constantly re-examined and altered from time to time. Consequently this is a preliminary report on an experimental course.

Un método de enseñanza de la Ecología humana para estudiantes de primer año

En 1952, la Facultad de Medicina a la Univ. de North Carolina inauguró un curso experimental llamado "Introducción de la Medicina Clínica". El fin de ese curso era familiarizar a los estudiantes de primer año con un concepto del hombre que abarcaría

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aspectos orgánicos tanto como culturales, y aspectos biológicos tanto como psicológicos y sociales. Dicho curso, de 2 horas semanales, duraba un total de 72 horas, durante el primer año. Aunque los métodos de enseñanza de este curso han sido objeto de discusión y revisión constantes, su fin sigue siendo el mismo. La evolución de ese experimento, desde su iniciación hasta hoy (con ayuda de

fondos concedidos por el *Public Health Service* de los Estados Unidos) se describe detalladamente en el presente trabajo, donde se comenta también sobre el valor de sus resultados.

* * *

Separatas de este artículo, en español, podrán obtenerse si son solicitadas por un minimum de 25 lectores.

Religion & Mental Health

THE purpose of a new grant of \$10,000 to the National Academy of Religion and Mental Health by the Smith, Kline and French Foundation is to provide fellowships for theological students and clergymen of all faiths to prepare them, presumably by whatever effective method is available, to act as chaplains in mental hospitals. Such action, according to the September 5, 1957 issue of *The New England Journal of Medicine*, is illustrative of the positive and hopeful attitude that has developed toward mental health and the relief of mental illness by any agencies that seem most naturally fitted for the task. One of the primary functions of the Academy has been to stress the role that clergymen of any denomination can play in helping the emotionally disturbed.

In a roster of over 2000 the organization includes 800 members of the American Psychological Association, 500 clergymen and more than 400 psychiatric social workers, cultural anthropologists, educators and laymen.

Physician-Patient Relations in a Teaching Hospital

CHARLES S. BRANT AND BERNARD KUTNER*

Introduction

THE CONCEPT of a patient-centered, comprehensive approach to medical care has been increasingly developed in the planning of American medical education in recent years. To give the student actual experience in working with patients early in his training and to create an awareness of the psychological, family and community dimensions of medical care, curricula have been revised, teaching of the social aspects of medicine has been instituted and study of the medical educational process as it affects student attitudes has been undertaken.¹ The general aim of these programs has been to develop, together with the highly specialized technical knowledge and skills essential for the practice of modern med-

icine, an understanding of, and a concern with the social, cultural and psychological factors inherent in the processes of giving and receiving medical care. These would include the attitudes of patients towards illness, physicians, diagnosis and therapy, in such varied settings as the physician's office, the out-patient clinic, the hospital ward and the home-care program. To know the patient and to treat him as a total person rather than as an illustration of a particular disease entity is the philosophy of physicians and medical educators committed to the concept of comprehensive care. It is directed to the end that medical care shall be given in ways which take active cognizance of the patient's socio-cultural dimensions, minimize psychic stress and suffering, and develop on the part of patients, positive attitudes towards seeking and receiving medical care.

Teaching a philosophy of medicine, however, is not the same thing as its implementation in practice. One may ask: how fully is this newly emphasized, broadly oriented approach actually employed when the student has received his medical degree and entered the world of the teaching hospital as an intern, and later, as a resident? What factors affect the carry-over of this approach to medical care? Are further measures required, in the program of the teaching hospital, to insure that the young

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physician will deal with the multiple dimensions of the patient's problems in his daily work—or, indeed, that he will see all the significant dimensions?

In an attempt to throw light on these and related questions, a study was undertaken on the surgical service of a large municipal teaching hospital. The resident medical staff, under supervision of the attending staff, is accorded a large measure of responsibility for all phases of patient care, ranging from admission and diagnosis to work-up, carrying out medical and surgical procedures, to convalescent care in the hospital and eventual discharge. On the surgical service, the house staff is systematically organized. At the bottom of the pyramid is the intern,* who has the immediate responsibility for the care of eight to ten patients. He makes the initial examinations, takes the history, requests laboratory and other diagnostic tests he deems necessary, interprets their results, and on the basis of all the facts he possesses about the patient, makes a diagnosis. The assistant resident and the resident on each ward review the intern's findings and conclusions, and decide what surgical procedures are indicated. Under supervision of a member of the attending staff, they perform the surgery. The chief resident, having longer training and experience in surgery, has the overall supervisory responsibility for the work of all interns and residents on the service, and maintains liaison with the attending staff in connection with problems requiring their attention.

The study was limited to the surgical service where the needs of pa-

tients in the psycho-social sense are commonly very acute and seemingly more obvious than in the case of other types of patients.² The typical patient admitted to the surgical service of the hospital is in the older age range, foreign-born and reared, and of very limited educational achievement. Although many patients are long-time residents of the United States, their life experience has been circumscribed and their total cultural adjustment limited by continuous living in urban neighborhoods composed of immigrant groups of similar national origin. They are accordingly handicapped with respect to facility in English as well as knowledge and understanding of the nature and workings of a modern hospital. For this type of patient, hospitalization is experienced as a radical disjunction from deeply ingrained habits, life patterns and expectations.

Procedure

The study procedures consisted of personal interviews with fifty patients, unselected except for diagnosis, conducted both pre-operatively and post-operatively. The group was about equally divided by sex, nearly all over the age of 60 with diagnoses of gall bladder disease, peripheral vascular disorders, genito-urinary ailments and disorders of the skin. The interviews were aimed at elicitation of feelings about hospitalization, knowledge of and attitudes toward diagnosis and contemplated surgery, and understanding of the work of physicians and nurses. A large portion of the surgical residents were also interviewed for the purpose of learning their views and attitudes concerning relationships with patients and the role of the physician in the other than purely technical aspects of patient care. A

*This situation will change somewhat with the arrival in late 1957 of medical student clerks on the surgical wards.

sample of the graduate nurses on the surgical service were interviewed in order to gain insight into their perceptions of the psycho-social needs of patients and to obtain their observations and impressions as to how these needs are manifested by patients, and how they are managed by physicians and nurses. Finally, direct observations were made of physician-patient interaction in treatment situations at the bedside and during ward rounds.

Results

Some principal finding of the study may be summarized as follows:

1. Despite the acknowledged desirability of such a procedure, rarely do the house staff physician and the patient meet in a private, unhurried conference to discuss the diagnosis and the plan of therapy. Usually, the physician informs the patient at the bedside briefly and in general terms that an operation on a given organ is necessary because it is diseased or is not functioning properly. Signed consent for the procedure is then requested.³

2. Patients seldom attempt to ask the house staff physicians about the impending surgery at the time they are informed of it, yet, many patients admit that questions come to mind which they want to ask. The tendency is very common for the patient to feel that he should not "bother the doctor" by asking questions. House staff physicians interpret the silence and passivity of patients as meaning that the patients have no immediate problems, and, therefore, they see no need to elicit from patients whatever questions may be troubling them.

3. Experienced graduate nurses on the surgical wards tend to agree that patients frequently feel isolated, are often in a state of anxious uncer-

tainty about their conditions and do not understand the events occurring in the course of their hospitalization. Patients frequently put questions to nurses about diagnosis, prognosis, tests and medications which nurses feel they are not qualified to answer, or which they feel, as nurses, they are not free to answer. When they refer these questions to house staff physicians, in some instances nurses are requested to answer the patient's questions themselves; in others, the physician may indicate he will do so himself. In the latter situation, the intention is sometimes forgotten, owing to the pace and multiplicity of tasks in the house officer's total schedule of work, and his common tendency to give low priority to talking with patients.

4. The paucity and infrequency of communication from the professional personnel about their illnesses, therapy and impending events leads patients sometimes to acquire misinformation and misinterpretations by asking questions of other patients who have seemingly similar illnesses or have had apparently similar surgery.

5. On occasion the patient does not know when his operation will occur, until the day preceding the scheduled date for surgery. Commonly, scheduling is not prepared by the surgical resident before the day preceding the date of operation. Sometimes the patient does not know definitely that he is to have an operation at all until the day before the date on which it is to be performed.

6. Patients rarely know in advance of normal, predictable postoperative events such as the routine stay in the recovery room following surgery and preceding return to the ward, the expectation of some pain at the operative site for a time or the ne-

cessity of early ambulation. Some patients presume that the total time off the ward was spent in the operating room in a lengthy, extensive and difficult procedure, misinterpret postoperative pain as surgical failure, and regard the effort of the nurse or aide to have them leave their bed a few days postoperatively as callousness if not sadism.

7. In amputation of the lower extremities due to peripheral vascular diseases, the patient seldom acquires a thorough understanding (to the limits of his individual ability to understand, of course) of the compelling necessity of this drastic procedure. His normal anxieties concerning the operation and his probable future adjustments do not usually undergo thorough discussion with the house staff physician. Few amputees who possess good rehabilitation potential acquire this hopeful information preoperatively. Seldom are they made aware before operation, of the time, effort and services available to deal with re-ambulation, rehabilitation and prostheses.

8. In general, house staff physicians on the surgical service do not often conceive of the physician-patient relationship as an integral, important, part of their role. There is little agreement among them concerning the communicative aspect of their relation to the surgical patient, and a tendency to view this as quite incidental and peripheral to their "real" concerns. Some house staff physicians believe that the teaching hospital does not provide the proper setting or amount of time for developing their relations with patients, but that once they enter private practice this phase of their work will develop naturally or spontaneously.

It is obvious from these study findings that minimization of patient stress and anxiety during the course

of treatment, an important goal of the patient-centered, comprehensive philosophy of medical care, is not always adequately achieved. Correspondingly, the development of positive attitudes on the part of patients in seeking and receiving medical care which will in turn advance the cause of public health, is not furthered by disease-centered medical care.

Conclusions

What are the implications of these findings for medical education? The following are suggested:

1. Much more emphasis should be placed in the instruction of medical students on the socio-psychological nature of the treatment situation (whether in the physician's office, the clinic or the hospital ward) as an *interpersonal relationship*, of which the physician must be fully conscious and which he must accordingly use actively to establish genuine communicative understanding with the person being treated. This needs much stressing not only because of its intrinsic importance, but also as a corrective to the tendency of medical students to interpret the "social and psychological aspects of medical care" as consisting only of possible *etiological* factors of a social and psychological order. What needs to be made unmistakably clear is that whether or not there are etiologically significant social and psychological factors, every time a physician and a patient meet the social and psychological interplay between them has a significant influence upon the patient's thinking and motivation regarding his health.⁴

2. Because the process of medical instruction is so much a matter of clinical demonstration of what to do and how to do it, teaching concerning physician-patient interaction must also be demonstrated. Since the realm

of physician-patient relations, by its very nature, cannot be reduced to "how to do it" exact formulae in written text and diagrams, didactic teaching alone may be quickly lost on the student. Another cogent reason for teaching via demonstration in this field is the student's tendency to identify with the clinical professor, who serves as a role-model. The importance of physician-patient relations and communication will best be gotten across to the student when he sees the clinical teacher, whom he respects for his medical knowledge, ability and reputation, developing a communicative relationship with a patient in a manner that leaves no doubt in his mind about the importance attached to this aspect of a physician's work.

3. In the clinical years of the medical curriculum, the student should know clearly that his work is being judged in terms of both its technical qualities and its human relations aspects. He should never be permitted to feel that this work is entirely acceptable if he excels in one side of it but is poor in the other.

4. Finally in the training of interns and residents, the attending staff should be alert to the possibility that the house staff physician may tend to neglect the interpersonal relations aspects of patient care. One strong influence in this direction is the added responsibility to which the young physician must adjust, often in the face of a heavy patient load and a rapidly moving, tiring schedule of work and his natural anxieties in the crucial matters of diagnostic and therapeutic accuracy. Another factor may be the physician's own anxieties and the compensatory tendency to develop a hard, cold manner particularly in such cases as require rather mutilative or disfiguring surgery or where there is

grave illness or uncertain prognosis. While reacting with normal human responses to stressful experiences, it is still necessary for him to develop, with any help his more experienced teachers can provide, the kind of objectivity that does not exclude a readiness to incorporate the patient's situation, feelings and needs and to relate himself to the patient in a positive way.

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Medicine in the Framework of the University

Sir FRANCIS WALSH, O.B.E., M.D., D.Sc., F.R.C.P., F.R.S.

IT IS not for me, a stranger in this city and university, to tell you, who all know it, the full story of Arthur Hall's part in the development of your medical school and its embodiment in the university as a faculty of medicine. I believe it is a story without parallel in our time in the creating of a university school of medicine, and we surely may not let this occasion pass without giving at least the bare bones of what this remarkable man undertook and accomplished in connection with it.

Hall's versatility

Shortly after his appointment to the staff of the Sheffield Royal Hospital, and in addition to his clinical responsibilities, he became in succession demonstrator, lecturer, and then professor of physiology. He took the initiative in securing for the school the whole-time services as an anat-

mist of Christopher (later Lord) Addison. He then handed over the professorship of physiology to a whole-time professor and turned to the founding of a department of pathology, initiating a pathological museum and filling the role of professor of pathology, until the time being ripe, he yielded this role also to a whole-time professor. Finally, in 1915 he put the capstone upon this versatile *curriculum vitae* by becoming your university professor of medicine.

These are but the high-lights of years spent in the devoted and sagacious service of your school and university, and the creative role he played in so many vital departments suggests that the spirit that has given birth to the phenomenon of "working to rule" had not been thought of, or, at least, had made no appeal to Arthur Hall; a man urged onwards by altruistic motives.

This story has been more fully and better told by his colleague Dr. Gurney Yates and by Dr. Chapman in

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his history of the university, and, to my mind, not the least impressive element in it is that a man of such administrative gifts and constructive mind should have preserved as his first love the active practice and teaching of his profession of medicine and the pursuit of knowledge within it. It is not always so, for administration and the entry into the world of public affairs to which it may so easily lead seem to offer what for some are more attractive prizes and a wider field of action than does constancy to the vocation of medicine.

Yet Arthur Hall remained for all his working life a physician first, and it was to this end and that it might be possible for others in his native city to do likewise that he used his great administrative gifts, and who shall doubt that he chose therein the better part?

So it happened that, when at the end of the first world war the mysterious disease epidemic encephalitis appeared in this country and fell upon this city, he was fully prepared for the occasion, and made a deep and extensive study of the disease, embodying his observations and conclusions in a monograph that is a model of its kind and remains as a classic account of its subject. Nor was this by any means his only original contribution to medical knowledge.

It is not surprising, therefore, that you should wish to commemorate this good and gifted man who over a long life remained faithful to his city, to its university, and to his profession. A city does not command an allegiance of this order from its most distinguished sons without deserving it, and perhaps the occasion is a fitting one on which to salute those amongst Arthur Hall's collaborators in this great work who may be here

with us, and whose names and deeds are known to you, and to recall those two most loyal collaborators, Christopher Addison and J. B. Leathes.

A great achievement

The theme I wish to put before you is one from which, perhaps, a more modest man might have refrained, yet it is one naturally suggested by the occasion of this lecture and by the achievements of the man whom it commemorates, for the elevation of the Sheffield Medical School into the Medical Faculty of your university was amongst the greatest of the achievements in which Arthur Hall was a leader, and to one which, I surmise, may have given him his deepest satisfaction.

From the Middle Ages onward, medicine has been nourished in the bosom of the university, and indeed, historically, there is no older university faculty than that of medicine. If we were to name Salerno as the first of the universities in Europe, then medicine would be the oldest faculty, but if we take Bologna, Padua, and Montpellier as the forerunners of the university in Europe, then medicine and law stand as the two original faculties.

My theme, then, is that medicine owes a great debt to its age-old association with the university, and that there are in medicine, largely conceived, ethical and humanist elements that should enable it to repay some of this debt to the university of today which gradually, put progressively, seems to me to be approaching ever more closely to the idea of the polytechnic, and to be developing an intellectual climate not wholly favorable to that generality of understanding that is the essence of a civilized culture.

I should therefore like to convey

to you a sense of the debt of medicine, first to the mediaeval university, and then to the post-Renaissance university of the 17th and later centuries.

That modern thought owes anything significant to the Middle Ages is an idea not now widely favored, and medicine and physical science commonly are said to date their rise from the change in human thought and outlook that spread from Italy at the time of the 15th century Renaissance.

An untrue picture

The picture we commonly receive of medicine in the Middle Ages is that of a subject struggling vainly to be free from the bonds of Galen's thousand-year-old teaching, from the restrictions of the Church, and from the scholastic disputations that frittered away the intellectual energies of the mediaeval university.

I believe that this notion is wanting in historical sense and does grave injustice to the Middle Ages, and, like so many ideas that are taken for granted, needs reconsideration.

Yet it is very widespread and finds expression even in Sir Charles Sherrington's life of Jean Fernel, the 16th-century Paris physician. Sherrington was the most fair-minded of men, yet he seems to dismiss the liberal arts, that were the basis of the mediaeval undergraduate's training and the necessary foundation of orderly thinking, as "mere lessons in memorizing maxims for divinity." Yet, even so, he did not claim that the arrival of humanism with the Renaissance was the signal for any immediate efflorescence of intellectual activity in medicine, for he admits that the Italian renaissance "changed a number of things, but brought no change to the *a priori*

doctrine or outlook of medicine. . . . The renaissance with all its social enlightenment," he goes on to say, "bowed its head under pestilence and fever with hardly further protest than a prayer," and, again, "the renaissance round Fernel troubled little about this. Intellectually its interest did not lie in probing uncertainties about nature."

There was in fact more than a century-long lag between the heyday of the renaissance and the birth of the possibility of modern medicine and of physical science in the 17th century.

The reason for this long pause is indicated by Sherrington himself in the 'Life' to which I have referred. He says, "Essential to a great discoverer in any field of nature is an intuitive flair for raising the right question. . . . To ask something which the time is not yet ripe to answer is of small avail. There must be some means for the reply and enough collateral knowledge to make the answer worth while."

This assumes the coincidence in time of the man, the adequate intellectual method, and the keen interest in nature for its own sake. For medicine the man was William Harvey, the time the opening of the 17th century—the century of geniuses in science—the intellectual method derived from the Middle Ages, and the interest in nature for its own sake from the Renaissance. All these together first made possible the growth of medical science. One item remains to be added to this list—namely, the practical method, in this case that of direct and experimental observation. But these were known and had been lying unused for a thousand years since Galen's time. It was Harvey's signal merit to have resumed them.

Our debt to the middle ages

In short, each epoch in history has its own contributions to make, and, so judged, the contribution of the university in the Middle Ages is seen to have been a necessary step in the evolution of medicine and a science in general, and to have been of a nature characteristic of its time. I shall speak of this contribution as the intellectual method, and my reasons for doing so are perhaps best expressed in the words of a great modern mathematician and philosopher, Alfred North Whitehead (1926). This is what he says of our debt to the Middle Ages:

"The Middle Ages formed one long training of the intellect of Western Europe in the sense of order. There may have been some deficiency in respect of practice, but the idea never for a moment lost its grip. It was pre-eminently an epoch of orderly thought, rational through and through . . . the habit of definite exact thought was implanted in the European mind by the long dominance of scholastic logic and scholastic divinity. The habit remained after the philosophy had been repudiated.

"I do not think that I have even yet brought out the greatest contribution of mediaevalism to the formation of the scientific movement. I mean the inexpugnable belief that every detailed occurrence can be correlated with its antecedents in a perfectly definite manner, exemplifying general principles. Without this belief the incredible labors of scientists would be without hope. . . . Faith in the possibility of science . . . is an unconscious derivative of mediaeval theology."

How was this sense of order and the habit of orderly thought imparted to the medical student of the mediaeval university? By his training in

the so-called liberal arts, in particular the three arts of the Trivium—grammar, rhetoric, and logic; and this reminds us that the student was already a Master of Arts before he entered upon the study of medicine.

It is by the use of these arts that the unordered phenomena of our observation at the bedside or in the laboratory are transmuted into ordered knowledge. First, the facts are recorded in a precise language, the grammar of medicine: that is, they are translated into a grammatical construction that now comes to stand for phenomena, in this they are classified and grouped into patterns and sequences. Thus grouped, they can be considered from different aspects—that is, in terms of language, they are rhetorically expanded and dealt with by analogy, and finally logically interpreted so that rational conclusions may be drawn from them. In the simplest terms, the liberal arts enable us to handle phenomena, to classify them, to contrast and to compare them, to discuss them from every aspect, and to formulate them as exemplifications of general principles.

The intellectual weapons essential to this task, which is the task of every scientific observer, were forged for us in the mediaeval university. Today every first-rate written record of a contribution to original knowledge demands and exemplifies the adequate use of the liberal arts, and every slovenly paper in which the facts are chaotically recorded, or classified, or their significance illogically interpreted, or missed, is an example of our too-common weakness in the use of these arts.

Growth in interest

Yet the capacity for ordered thinking and expression we inherit from the mediaeval university was not of

itself enough to initiate the development of observational science. This required, as we have seen, the growth of an eager interest in natural phenomena for their own sakes. This interest had its earliest manifestations in the late Middle Ages in the realm of sculpture and illuminated books: for example, in the free carvings of natural objects in the Gothic, such as we see in the lovely carvings in the chapter house of Southwell Minster and in other great Gothic churches all over Western Europe and on the misericords which adorn their choirs. With the Renaissance this interest deepened and widened, and in due time—namely, in the 17th century—it first became systematically devoted to the study of nature. William Harvey stands as the classic figure for us in medicine in this movement. Scientific medicine had become possible, but to this possibility both the Middle Ages and the Renaissance had made their different but necessary contributions.

This brings me to Harvey's significant and explicit claim in his immortal work, *De Motu Cordis*—namely, that he had shown "by reason and experiment" the role of the heart in the circulation of the blood. These two elements symbolize, I suggest, the particular contributions, of the Middle Ages and the Renaissance respectively, to his achievement.

In one of his well-known addresses, Wilfred Trotter, that sage, philosopher, and surgeon, discussed the relative roles of reason and observation in medicine, and stressed the necessity of a due mixture of both and the evils of either when not balanced by its natural complement. Today, perhaps, observation is in the saddle, but not always with both its feet in the stirrups of reason, and the frequent and misguided reiteration of John Hunter's famous question to the

young Jenner, "Why think, why not try the experiment?" that we encounter in Hunterian addresses and articles on medical history, has become a foolish and tiresome cliché. We cannot think that Hunter wished to imply an antithesis between these two activities, yet some of the platitudinous quoters of his historic remark write as though they believed that to make an experiment would relieve Jenner from the obligation of thinking: from the iron necessity of sound intellectual method. Perhaps Harvey's brief comment upon his own labors, that they were the fruit of "reason and experiment," though now forgotten by us, was an aphorism far better worth preserving. The curious will note which of these pronouncements came from the physician and which from the surgeon, recalling that the latter did not enjoy for some centuries that close relation with the university which from the beginning was the advantage of the physician.

I trust I may be pardoned this momentary lapse from the gravity of my theme.

I have been careful to say that Harvey's discovery of the circulation of the blood was not the birth of scientific medicine, but the birth of the possibility of this. A very long gestation was to follow Harvey's resumption of the experimental method before a medicine or a surgery that we can look back upon without horror came to birth. For example, during the rest of Harvey's own century, the highly organized activity of witch-hunting and witch-burning represented the psychiatry and the geriatrics of the age, while surgery remained a fearful lottery until a hundred years ago. Although Harvey's older contemporary, Francis Bacon, had delivered himself of the aphorism that the whole art of med-

icine is in making observations (*ars medica tota in observationibus*), clinical examination as we now understand it had to wait until the stimulus provided by Laennec's discovery and use of the stethoscope in the opening years of the 19th century; that is, for two hundred years.

We must be realists, therefore, and recognize that the growth of medicine, and of the biological sciences in general, was painfully slow and did not compare with the remarkable efflorescence of the mathematical and physical sciences in the years following the Renaissance. This slow progress is mirrored in Dr. Maurice Davidson's admirable history of the school of medicine at Oxford.

Looking, then, over the centuries from the 17th back to the 13th, we see the paradox that, while the earlier centuries forged in the mediaeval university the intellectual weapons necessary to the refining and ordering of knowledge, yet the prevailing thought of the Middle Ages that truth could be arrived at by a metaphysical analysis of the nature of things in effect prevented the study of nature, and it needed the 16th century revolt from this philosophy for the method to be available for adaptation to the experimental method with its corollary of inductive reasoning. Yet the intellectual method was, and remains, essential to scientific thinking.

Ancestry of the natural sciences

It was during these centuries that the seeds of the natural sciences were wafted from the ancestral soil of the medical faculty of the mediaeval university to take root in alien soil and to be cultivated in separate laboratories. Many of our current terms indicate this ancestry of the natural sciences: for instance, the modern

word "physics" derives from "physic," the ancient name of medicine (Scott Buchanan, 1938).

This is how we come to claim that medicine was the mother and the nurse of science, and to remember the prestige which the faculty of medicine enjoyed in the universities of the past. Yet we have also to admit that the university background of medicine kept alive the intellectual tradition, and tended to prevent its debasement by the technical arts.

Perhaps today the faculty of medicine does not hold quite the pride of place it once did. Her daughter sciences may seem to have outstripped her and she is no longer a mother science.

Indeed, we hear it argued that medicine is predominantly a matter of empirical procedures and arts, with a vast and increasing borrowing and application of other sciences. This matter of the structure of medicine amongst the sciences I have sought to clarify elsewhere, and I will not go over the ground again, but draw your attention to another aspect of medicine—the unchanging face of medicine—which gives it a lustre and a virtue transcending those of all the natural sciences.

Practical wisdom

If I dare quote Aristotle's *Ethics*, and yet be deemed to be talking seriously to a modern audience—an achievement not always possible in the world of medicine, alas!—I would remind you that over 2,000 years ago he pointed out that science deals with universals and things that are of necessity, but not with the particular or with the affairs of men. It is prudence, or, as it has been translated, practical wisdom, that deals with these; and prudence, Aristotle

tells us, is neither science nor art, but a virtue of the soul.

I hope I am not being obscure when I introduce the notion of the virtue of prudence, which I shall henceforth call practical wisdom, for it must be clear to anyone who considers the role of the doctor that ultimately he applies both his art and his science to the individual human person to the end that he may achieve the greatest good of that person. This is something over and above the pursuit and application of science, for practical wisdom implies not only the fruit of experience but also the ethical element that enters inescapably into the practice of medicine.

The physical scientist who designs a weapon of war, or the propellant or explosive that its employment requires, does not hold himself in any degree responsible for the proper tactical use of the weapon in the changing circumstances of warfare, nor as having any ethical responsibility for its use or for the consequences of this.

The only ethical demand upon the scientist *qua* scientist is that of intellectual integrity in his work, and practical wisdom is no essential element in this. Indeed, if he be an experimental scientist, he so devises his experiment as to leave the least possible role for judgment, intuition, or practical wisdom. In fact, the more exact a science, the less experience and practical wisdom it demands. The Greeks held that mathematics should be taught first and before natural philosophy, for the precise reason that it demanded no experience.

Medicine, on the other hand, is a compound of applied science and practical arts, making large demands upon these human faculties that the good experiment seeks to exclude, and in addition is governed by the requirements of practical wisdom with its ethical content.

Here is an aspect of medicine that does not wholly derive from the university, but from the very origins of medicine, where we find it embodied in the Hippocratic Oath—the first professional code of ethics in history. Nevertheless, the spirit of the oath still continues to inform the training of the doctor, perhaps by example more than by explicit precept, and in the final clinical years of this training rather than in the preclinical years, and there are still some universities where some form of the oath is administered to the new medical graduate.

We find, then, that the role of the university faculty of medicine is the maintenance and the inculcation of a discipline which, over and above its strictly intellectual content and its special methods, seeks to fit its disciples in the exercise of practical wisdom as an integral element in their future activities and ways of thought—that is, in the ethical sanction which requires that they should seek the greatest good of their patients, and in the application of general principles to particular cases.

Medicine has a changing and an unchanging face: prudence in its practice is its unchanging face, and thus this dual nature of the role of the medical faculty makes it unique amongst the faculties.

The suggestion that all that this implies can be imparted to the medical student may be regarded as fanciful to the point of absurdity. It is of course true that you cannot teach wisdom by a series of lectures, not even if it be that panacea, a course in psychology; but since it is one of the functions of a medical school to set an example of practice, I do believe that the student can by example be introduced to the spirit of the Hippocratic Oath, and by both example and precept led to understand those par-

ticular aptitudes and exercises of judgment vital to the practice of medicine, and without which, with all the information in the world, he may still go astray.

If, then, I am right in thinking that medicine, viewed as a whole, has in it these elements of science, art, humanism, and practical wisdom, where better than in a university faculty can it be duly and worthily fostered?

The ideal may seem unattainable in some circumstances: either because no one can be induced to hold it with conviction, or because in so large a center of medical education as London, for example, with its dozen or more of separate medical schools, the university can mean no more than a remote examining and administrative body: creating no corporate sense, and stirring no man's pulse the faster, unless he be moved by the merely gigantic.

Concept of medical faculty

But how different it can be in such a university as yours, where the sense of corporate unity and pride is so easy to develop and maintain, where relatively few teachers can leave the whole and create the atmosphere of a faculty where the science and art of medicine are given their proper place in the larger framework of medicine as I have tried to picture it. I dare to hope that you may not find it unfitting, upon this occasion of our paying homage to the memory and the achievement of Arthur Hall, that such a concept of a medical faculty should be reformulated, for what other or lesser concept can have moved him to the labors out of which your medical faculty was born?

It is surely possible, without the paraphernalia of special lectures, to

give the student upon his entry into the faculty some sketch of the many and different elements out of which has grown the ancient discipline to which, in its modern form, he is about to submit himself: some glimpse of the total pattern of his activities and their end, so that his mind is formed to medicine as early as possible.

And if the dimensions and geographical unity of the faculty make such a design possible, it is furthered yet more by the wisdom with which, in my humble submission, you have in this university filled your chairs of anatomy and physiology with medical graduates, rather than by nonmedical specialists in some particular field of these sciences.

Whatever their distinction as researchers and teachers, the latter cannot really have any insight into or feeling for those supra- and non-scientific modes of thought and action that go to the making of the good doctor, nor take their due share in the formation of the student's mind. Some may say that to do this is not the role of the preclinical teachers. Yet, if the education of the doctor is to be a coherent sequence of studies leading to an end, it must be the role of all his teachers to contemplate this end, and this involves something more than the necessary attempt to make anatomy and physiology seem relevant to clinical science: an attempt which, it is only fair to admit, most preclinical professors now already make.

What I am leading up to is that a university faculty of medicine, where a worthy concept of medicine obtains and informs teachers and students, cannot fail to retain its rightful place amongst the faculties in virtue of what it represents: namely, a discipline that strives to unite science and wisdom into a greater whole.

Such an idea is as old as medicine. Hippocrates has rightly been called the father of medicine, and this is what Dr. Charles Singer, our great historian of medicine, says of him: "Hippocrates will ever remain the type of perfect physician. Learned, observant, humane, with a profound reverence for the claims of his patients, but an overmastering desire that his experiences shall be of benefit to others, orderly and calm, disturbed by anxiety only to record his knowledge for the use of his brother physicians, and for the relief of suffering. . . . He is a figure of character and virtue which has had an ethical value to medical men of all ages."

This is the ancient tradition, this the ideal, of the university faculty of medicine since such faculties existed, and in so far as we can strengthen this spirit and these aims in the modern faculty of medicine, we shall be giving back to the university of our day something of the spirit which informed the mediaeval university and the university of Newman's thought. We shall also be contributing to the main business of a university—namely, to pass on from one generation to another the tradition of a civilized culture, which is more than the sum of the curricula of its various faculties.

This is how I would wish to see medicine in its university framework, and I venture to believe that Arthur Hall's concept of medicine was neither remote from, nor alien to, this view. Indeed, nothing but the driving force of a high ideal could have made it possible for him to sus-

tain the labors he undertook over so many years that this school of medicine and this university should grow and prosper.

He was a man cast in the true Hippocratic mould, so that the man was even more than what he did: a man not afraid to think highly of his profession and of his duties and of his place within it; and with this example and its harvest around them, his successors surely need not fear to cherish high aims for their university, and especially for its faculty of medicine, in this somewhat mercenary and disillusioned age when medicine is rather more often presented to us in an economic than in an ethical and academic framework.

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*68th Annual Meeting
of the
Association of
American Medical Colleges*

*Chalfonte-Haddon Hall
Atlantic City, New Jersey
October 21, 22, 23, 1957*

Information

Hotel

Requests for hotel reservations should be made directly to the Hotel Haddon Hall, Atlantic City, New Jersey. Rates for the meeting, on the American Plan, are as indicated on the Hotel rate card.

Gratuities covering dining room personnel will be added to the above charges in the amount of \$1.25 per day per person.

Special tickets for the Annual Dinner, Monday evening, October 21st, will be purchased at the Registration Desk at \$6.35 each. Because we are using the American Plan each diner will sign a slip at the dinner which will credit the individual's hotel account with \$3.75.

Transportation

Eastern and Allegheny Airlines service, Atlantic City from New York, Philadelphia and Washington, D. C.

The Pennsylvania Railroad maintains one train a day direct to Atlantic City from New York. Passengers from the West on the Pennsylvania change at North Philadelphia (on the same platform) to New Jersey Seashore Service.

The Baltimore and Ohio Railroad maintains connecting bus service from Philadelphia to Atlantic City.

Registration

Registration will begin Saturday, October 19th, at 1:00 p.m. and will continue through Wednesday, October 23rd, until 12:00 noon. There is no charge for registration and all persons attending any of the meetings should register.

Women's Activities

An informal program of activities has been arranged for the women and they are urged to consult with Miss Allyn at the Registration Desk concerning the details.

Pre-Conference Meetings

Sunday, October 20th, has been specially reserved for meetings of the several standing committees of the Association called by their chairmen. No public meetings will be scheduled for that day.

Annual Reports of Standing Committees

Mimeographed copies of the annual reports of the Association's standing committees will be provided each person as he registers. Open hearings on each of these reports will be held at 4:00 p.m. on Monday, October 21st, 1957.

Monday, October 21, 1957

VERNON ROOM

- 9:00 A.M. INTRODUCTION OF NEW DEANS
- 9:15 A.M. PRESIDENTIAL ADDRESS—JOHN B. YOUMANS
- 9:45 A.M. REFLECTIONS FROM THE INSTITUTE ON THE ECOLOGY OF THE MEDICAL STUDENT
- a) Robert J. Glaser
 - b) George Packer Berry
 - c) Reports by Institute Participants
- 12:00 NOON LUNCH—HADDON HALL, WEDGEWOOD ROOM
CHALFONTE, SYLVAN ROOM
EXHIBIT—SIMULATED CASUALTIES, GARDEN ROOM
- 2:00 P.M. a) Address—O. C. Carmichael
- b) An Experiment with Group Interview in the Selection of Medical Students—G. G. Jackson, P. E. Nielson, W. F. Kellow—University of Illinois
 - c) The Impact of the Medical School on the Student. The Stresses and Strains of Medical Education—Everett Hughes, University of Chicago
 - d) Student Reactions to a Course in Social and Environmental Medicine—Report of a Six-Year Experience—William Orr, Vanderbilt
- 4:00 P.M. OPEN HEARINGS ON ANNUAL REPORTS OF COMMITTEES
- a) Audiovisual Education—Committee Room 134
 - b) Continuation Education—Bakewell Room
 - c) Financing Medical Education—Card Room
 - d) International Relations in Medical Education—Rowsley Room
 - e) Internships, Residencies and Graduate Medical Education—Solarium
 - f) Licensure Problems—Room 1333
 - g) Medical Care Plans—Committee Room A
 - h) Medical Education for National Defense—West Room
 - i) Public Information—Room 1337
 - j) Educational Research and Services—Sun Porch
 - k) Editorial Board—Mandarin Room
 - l) Administrative Committee, Executive Council—Statement regarding new two-year schools—Room 1344
- 7:00 P.M. ANNUAL DINNER OF THE ASSOCIATION—CAROLINA ROOM
- a) Presentation of the Borden Award in the Medical Sciences for 1957—Oliver H. Lowry, Chairman of the Committee on the Borden Award
 - b) Establishment of the Abraham Flexner Award in Medical Education—Presentation of plaque to Dr. Flexner. Response—John Gardner.
 - c) Address—The Honorable Marion B. Folsom

Tuesday, October 22, 1957

VERNON ROOM

- 9:00 A.M. BUSINESS MEETING
Roll Call
Approval of Minutes of the 1956 meeting
Voting on new members
Report of Chairman of Executive Council—John B. Youmans
Report of Executive Director—Ward Darley
Report of Secretary and Editor
Report of Treasurer—Stockton Kimball
Report of Director of Research—Helen H. Gee
Report of Director of Audiovisual Institute—J. Edwin Foster
Report on Hungarian Refugees—Robert Boggs
Annual Reports of Committees
New business
Confirmation of time and place of next meeting
Report of Nominating Committee
- 12:00 NOON LUNCH—HADDON HALL, WEDGEWOOD ROOM
CHALFONTE, SYLVAN ROOM
EXHIBIT—SIMULATED CASUALTIES, GARDEN ROOM
- 2:00 P.M. a) A Design for Medical Education. A New Pattern for Modern needs—Campbell Moses, Lucien Gregg, T. S. Danowski—University of Pittsburgh
b) The Role of a Research Institute in a Medical School—H. P. Rusch, University of Wisconsin
c) Integration of the Fourth Year of College with the First Year of Medical School—Report of Two Years Experience—George Wolf, Jr., University of Vermont
d) Behavioral Sciences in the Medical Curriculum—Louis J. West, University of Oklahoma
e) The Role of Research in the Medical Curriculum—Vernon W. Lippard, Yale University
f) The Preparation of Medical Teachers—G. E. Miller, University of Buffalo
g) Two Years of Experience with Two-Way Radio Conferences for Postgraduate Medical Education—Frank Woolsey Jr., Albany Medical College
- 7:00 P.M. DINNER—HADDON HALL, WEDGEWOOD ROOM
CHALFONTE, SYLVAN ROOM
- 9:00 P.M. FILM—"Colorific"—Lt. Col. Vincent I. Hack, VERNON ROOM

Wednesday, October 23, 1957

VERNON ROOM

- 9:00 A.M. a) Medical Education in Britain—John R. Ellis
b) Medicine in the Tropics—An Elective Course for Fourth Year Students—H. W. Brown, Columbia University
c) The Rochester Student Fellowship Program—L. D. Fenninger, University of Rochester
d) Profile of American Medical Practice—F. MacD. Richardson, Pennsylvania Hospital
Presentation of Resolutions*
- 11:30 A.M. INSTALLATION OF NEW OFFICERS

*All resolutions before being presented to the General Meeting must be submitted to the Executive Director not later than 8:30 p.m., Tuesday evening, October 22.

Papers Read by Title Only

1. The Inpatient Service as an Adjunct to Teaching in the Medical Outpatient Clinic—Henry D. McIntosh, Duke University School of Medicine.
2. The National Board Examinations Versus Medical School Performance—John Hubbard, National Board of Medical Examiners.
3. Grand Rounds by Closed Circuit Television—George W. Dana, Pratt Diagnostic Clinic, Boston.
4. Teaching and Psychotherapy—Jacob E. Finesinger, University of Maryland School of Medicine.
5. The Experimental Approach to the Teaching of Human Ecology—Leon Lezer, University of Vermont School of Medicine.
6. The Evaluation of the Effectiveness of Various Criteria for Admission to Medical School—James O. Pinkston, Herman A. Within, Hannah Faterson and Donald R. Goodenough.
7. The Evaluation of Students—Vernon Wilson, University of Kansas School of Medicine.
8. First Year Medical Students' Interests and Performance During Interviews With Outpatients—Guy F. Hollifield.
9. Group Discussion Techniques for Use With Large Classes—Nicolas J. Cotsonas.
10. Patterns of Development in Medical Students During Four Years—M. J. Horowitz.
11. A Comparison of Two Rating Procedures in the Evaluation of Clinical Performance—J. L. Brozgal.

1957 Institute Program

REGISTRATION DESK, Hallway Tower Floor

INSTITUTE OFFICE, Mandarin Room

Tuesday, October 15

- 7:30 P.M. ORIENTATION SESSION, Tower Room
Committee members, discussion group chairmen and recorders, and secretaries
- 9:00 P.M. INFORMAL RECEPTION, West Room

Wednesday, October 16

- 8:45 A.M. GENERAL SESSION, West Room
Keynote address—Dr. Robert J. Glaser, Dr. George Packer Berry, and Dr. Thomas H. Hunter
- 9:15-10:00 A.M. Topic I—"Intramural Forces Affecting the Medical Student"
—Dr. Thomas Hale Ham, Chairman
45 minute presentation.
- 10:00-10:15 A.M. COFFEE BREAK, Hallway Tower Floor
Adjourn to designated rooms for round-table discussion groups.
- 10:15-12:30 P.M. TWELVE DISCUSSION GROUPS ON TOPIC I.
- 12:30-2:15 P.M. LUNCH
- 2:15-3:15 P.M. GENERAL SESSION, West Room
Topic II—"Diversity of Values and Objectives in Medical Education"—Dr. Daniel H. Funkenstein, Chairman
60-minute presentation—Dr. Daniel H. Funkenstein, Dr. George E. Miller, Dr. Leonard D. Eron, Dr. George G. Stern and Dr. William Schofield.
- 3:15-3:30 P.M. COFFEE BREAK, Outside West Room
Adjourn to designated rooms for round-table discussion groups.
- 3:30-5:30 P.M. TWELVE DISCUSSION GROUPS ON TOPIC II.

Thursday, October 17

- 9:00-9:45 A.M. GENERAL SESSION, West Room
Topic III—"Non-Curricular Factors Affecting the Medical Student"—Dr. Hugh Chaplin, Jr., Chairman
45 minute presentation—Dr. Hugh Chaplin, Jr., Dr. Milton E. Hahn and Dr. Dana L. Farnsworth

- 9:45-10:00 A.M. COFFEE BREAK, *Outside West Room*
Adjourn to designated rooms for round-table discussion groups
- 10:00-12:30 P.M. TWELVE DISCUSSION GROUPS ON TOPIC III.
- 12:30-2:30 P.M. Lunch
- 2:30-4:30 P.M. SYMPOSIUM ON "SOCIOLOGICAL STUDIES IN MEDICAL EDUCATION," *West Room*
Dr. George C. Reader, Dr. Robert K. Merton, Dr. Richard Christie and Dr. Julius B. Richmond
- 5:30-7:30 P.M. DINNER
- 8:30 P.M. DR. JOHN ELLIS, *West Room*
"The Ecology of the British Medical Student"

Friday, October 18

- 9:00-9:30 A.M. GENERAL SESSION, *West Room*
Topic IV—"Development of Professional Attitudes and Capacities"—Dr. George G. Reader, Chairman
30 minute presentation
- 9:30-9:45 A.M. COFFEE BREAK, *Outside West Room*
Adjourn to designated rooms for round-table discussion groups.
- 9:45-12:30 P.M. TWELVE DISCUSSION GROUPS ON TOPIC IV.
- 12:30-2:15 P.M. LUNCH
- 2:15-3:00 P.M. GENERAL SESSION, *West Room*
Topic V—"Educational Patterns for Medicine"
Dr. John A. D. Cooper, Chairman
45 minute presentation—Dr. John A. D. Cooper and Dr. George T. Harrell
- 3:00-3:15 P.M. COFFEE BREAK, *Outside West Room*
Adjourn to designated rooms for round-table discussion groups.
- 3:15-5:30 P.M. TWELVE DISCUSSION GROUPS ON TOPIC V.

Saturday, October 19

- 9:30-10:00 A.M. GENERAL SESSION, *West Room*
Summary of the five Topic areas by Topic Chairman
- 10:00-10:15 A.M. COFFEE BREAK, *Outside West Room*
- 10:15-12:00 noon CONTINUATION OF GENERAL SESSION—GENERAL DISCUSSION.

Editorials and Comments



Dean F. Smiley Moves to New Directorship

THE RESIGNATION of Dr. Dean F. Smiley from his position as Secretary of this Association and Editor of the *Journal of Medical Education* calls for an expression of deep appreciation for a job well done. His stewardship was characterized by a rare sense of devotion to duty and accordingly, to the Association of American Medical Colleges. In his new and challenging responsibilities as Director of the Educational Council for Foreign Medical Graduates, he will tackle a problem of vital interest to medical educators in the United States. His many friends are pleased that this change in position will not remove him from medical education—a field which we believe is his first love.

After graduation from Cornell Medical College in 1919, Dean Smiley was associated with the Student Health Service and the Department of Hygiene and Preventive Medicine at Ithaca. He was Director of the program until 1942.

Dr. Smiley was appointed Secretary of the Association of American Medical Colleges on August 13, 1948 and in 1951 Editor of the *Journal of Medical Education*.

With Dr. Smiley as Editor, the *Journal* has assumed a position of leadership in medical education. The quantity and quality of manuscripts has improved greatly. Circulation of the *Journal* has risen and now includes medical schools across the world. His editorials have been timely and often provocative. Of his manifold responsibilities, he

often said that the *Journal* was the "frosting on the cake" and for that we are all grateful.

As Secretary of the Association, he visited many medical schools and gained a wide grasp of the problems of medical education. His interest in audio-visual programs stimulated developments in that field. The variety of problems that flowed across his desk each day required an incisive administration.

Dean Smiley has given much to the Association of American Medical Colleges and the *Journal*.

We wish him well!

John. Z. Bowers, M.D.

Chairman of the Editorial Board.

Second Report of the Committee on Education Beyond the High School

THE SECOND REPORT of the President's Committee on Education Beyond the High School, of which Dean George Packer Berry is a member, should be of interest to all medical educators.

In line with the problems of our medical schools the report emphasizes the need for teachers as "the most critical bottleneck to the expansion and improvement of education in the United States."

For new programs emphasis is placed on the need for Federal grants-in-aid on a matching basis. These grants would be used for the construction of "non-income producing facilities (such as classroom, laboratory, library and administration buildings)."

The testimony of representatives of the A.A.M.C. on the need for the payment of full costs, including indirect costs, on Federal contract research programs is strengthened by similar proposals in the report.

The need for teachers is highlighted by the recommendation that boards of trustees, legislatures, and other responsible groups and individuals give the highest priority to salary increases for faculty. A goal of no less than double the present average level is set for within five to 10 years. Health benefits, group insurance retirement programs and educational opportunities for faculty children are suggested as desirable additional inducements for teaching careers.

The expansion and strengthening of graduate schools is suggested as a means by which the teacher shortage may be partially met.

The full report should make interesting reading for all medical educators. J.Z.B.

Changes in Curriculum Recommendations by General Medical Council of Great Britain

DURING RECENT years, some of the medical educators in the United Kingdom have been anxious to institute curriculum reforms but have been reluctant to do so under the 1947 recommendations of the General Medical Council. It was felt that these recommendations were so detailed as to be a hindrance to any effort at curriculum experimentation.

In the supplement to the *British Medical Journal*, June 8, 1957, a new set of recommendations on the curriculum is published for the General

Medical Council. These are more flexible and will allow reforms according to the initiative of the medical school.

Interdepartmental teaching is encouraged and preventive medicine is emphasized. An acquaintance with the work of the general practitioner is considered desirable.

U. S. medical educators may be interested in comparing the following statement of the General Medical Council with the recently revised Essentials of an Approved Medical School:

I. RECOMMENDATIONS AS TO GENERAL AND PREMEDICAL EDUCATION

The following examinations should be passed by every student before admission to the course of professional education:

- (1) A recognized preliminary examination in general education.

The minimum standard of general education required of an applicant should be that attested by the possession of a certificate bearing evidence that he has passed a matriculation or entrance examination of a university of Great Britain and Northern Ireland, or of the Republic of Ireland, or other examination recognized by such a university, or by a medical corporation, as equivalent thereto.

- (2) An examination or examinations in the following subjects conducted or recognized by the licensing body concerned: (a) Physics (theoretical and practical). (b) Chemistry (theoretical and practical). (c) Biology (theoretical and practical).

Note.—Applicants may offer themselves for examination in biology either before or after admission to the course of professional education.

II. RECOMMENDATIONS AS TO PROFESSIONAL EDUCATION

The period of professional study should be a period of not less than five academic years and should include instruction in the subjects specified below.

It is desirable that interdepartmental teaching should be encouraged throughout the whole period of professional study.

The memorizing and reproduction of factual data should not be allowed to interfere with the primary need for fostering the critical study of principles and the development of independent thought.

SUBJECTS

1. Human Anatomy, Physiology, and Biochemistry.—Instruction in human anatomy, physiology, and biochemistry should include instruction in histology and embryology.

Notes.—(1) It is desirable to emphasize the interrelation of structure and function, to provide adequate experience of dissection of the human body, and to demonstrate the anatomy of the living body. (2) Every effort should be made to secure close correlation in the teaching of anatomy, physiology, and biochemistry, and to stress wherever opportune the importance of these subjects in their clinical application. (3) Instruction should be given in the elements of normal psychology. (4) In order to ensure that students are fit to continue the work which they have undertaken, there should be an adequate test or examination in normal structure and function not more than two academic years after the student has entered on the period of professional education.

2. Medicine (including Child Health and Pediatrics, Social and Preventive Medicine, and Psychological Medicine) and Surgery.—Instruction in medicine and surgery should include: (a) Systematic instruction in the principles and practice of medicine and surgery, especially in relation to the prevention, diagnosis, and treatment of disease and to the maintenance of the highest standards of health. (b) Clinical clerkships in medicine, surgery, and pediatrics for a period of not less than 15 months in the aggregate.

Notes.—(1) It is desirable that for a part of the time of clinical clerkship the student should reside in hospital or conveniently near

by. (2) It is desirable that the student should be given opportunities to learn something of the work of the general practitioner. (3) During his study of all clinical subjects the attention of the student should be continuously directed by his teachers, to the importance of the interrelation of the physical, psychological, and social aspects of disease. (4) Though instruction in the various specialties in medicine and surgery should be directed in the main to the attainment of sufficient knowledge to ensure familiarity with common conditions, their recognition and treatment, the value of utilizing a specialty to demonstrate general principles should be borne in mind. (5) Instruction should be given in the principles of preventive medicine, and on the influence of heredity and environment in its widest sense on health and disease. Where appropriate the various agencies established by local authorities as part of the public health and social welfare services should be utilized for this purpose. (6) Instruction in psychological medicine should be carried out mainly in a psychiatric department, where neuroses and psychoneuroses can be studied, and should include demonstrations at a mental hospital and at a mental deficiency institution.

3. Midwifery and Gynecology.—Instruction should include: (a) Systematic instruction in the principles and practice of midwifery and gynecology. (b) Clinical instruction in midwifery and gynecology, and attendance on the practice of a maternity hospital or of the maternity wards of a general hospital, and on in-patient and out-patient gynecological practice. (c) Not less than two months of the time devoted to clinical instruction in midwifery should be spent by the student in residence either in a maternity hospital, or in a hostel attached to a maternity hospital or the maternity wards of a general hospital, during which period the student should personally conduct an adequate number of cases of labor.

Note.—Instruction should emphasize antenatal and postnatal care, the management of normal labor and of its complications, the impact of pregnancy on general disease and of general disease on pregnancy, and the care of the newborn infant. The management of major abnormalities of labor should be taught in principle rather than in detail.

4. Pathology and Bacteriology.—Instruction in pathology and bacteriology should be given in association with clinical studies. In addition to the systematic study of pathology and bacteriology, and to a short period as assistant in the conduct of autopsies, the student should be given ample opportunity to attend clinico-pathological conferences.

5. Pharmacology.—Instruction, which should include practical laboratory work, should be given in the mode of action of drugs, their distribution and fate in the body, their possible toxic effects, and their therapeutic uses.

Note.—It is desirable that students should be acquainted with the principles governing the design and interpretation of clinical trials.

6. Legal and Ethical Obligations of Registered Medical Practitioners, and Forensic Medicine.—Instruction should be given in the statutory obligations of registered medical practitioners, in the principles of medical ethics, and in forensic medicine.

III. RECOMMENDATIONS AS TO PROFESSIONAL EXAMINATIONS

A. General Conduct of Examinations

1. Candidates in all their examination work should be carefully supervised.
2. The examination in each subject should include written, oral, and (where appropriate) practical and clinical tests.
3. The written answers of each candidate should be marked by at least two examiners.
4. In all oral and clinical examinations at least two examiners should take part in the examination of each candidate, and the marks should be a joint adjudication.

5. Examiners should be empowered to take into account the duly attested records of the candidate throughout his course of study.
- B. Appointment of, and Circulation of Information to, Examiners
 6. It is desirable that examiners should serve for at least three consecutive years.
 7. Every examiner should upon his appointment receive from the body or board by whom he is appointed a copy of these recommendations, and every examiner in medicine, surgery, or midwifery and gynecology should upon his appointment receive a copy of the latest general report of the inspector in the relevant subject.
- C. Scope of Examinations
 8. Candidates should be examined in anatomy, physiology, biochemistry, medicine, surgery, midwifery and gynecology, pathology, bacteriology, and pharmacology.
 9. Examinations in the subjects included under medicine in the recommendations, and in the various specialties in medicine and surgery, may be separate examinations, or may form part of the examinations in medicine and surgery.
 10. The final or qualifying examination should be in medicine, surgery, and midwifery and gynecology.
- D. Final or Qualifying Examination in Medicine, Surgery, and Midwifery and Gynecology.
 - (i) Admission to Examination
 11. No part of the final or qualifying examination should be taken before the end of four academic years, and the examination should not be completed before the end of five academic years of professional education.
 - (ii) Conduct of Examination
 12. All clinical examinations should be held in properly equipped hospitals or examination halls. There should be provided for all clinical examinations a sufficient number and variety of patients.
 13. In the clinical examinations and uninterrupted period of at least one hour in medicine, and at least half an hour in surgery, should be allowed to the candidate for the examination of, and report on, his principal case. In all clinical examinations the examiners should observe the candidate make his examination, or require him to demonstrate his methods and findings.
 14. In medicine, in surgery, and in midwifery and gynecology, no candidate should be allowed to pass who is rejected in the clinical examination.
 15. A candidate rejected in any subject of the final or qualifying examination should, before he is readmitted to examination therein, be required to produce satisfactory evidence that he has during the interval pursued the study of the subject in which he was rejected. J Z. B.

The University in International Affairs

INTERCHANGE AND communication would seem essential for the maintenance of civilizations and progress. The dissolution of the Roman Empire was followed not only by a splintering of political and racial divisions but also by a break in communications. Progress was slowed, if not stopped. Except for the records which were painstakingly maintained by the monasteries, the age was indeed dark! By conjecture, the same process was responsible for the return of the jungle in the Hindi empires which had built the famous Angkor Vat.

Today the colonial empires are being rapidly displaced by strong nationalistic governments, many of which are in overpopulated areas and plagued by a myriad of internal problems involving education, nutri-

tion, sanitation, communication, etc. Many such areas are eager for the better order but impatient and inexperienced with the slow processes of democratic evolution. By tradition many have been accustomed to dictatorial government. It is of interest to note that both in China and Russia order was established from chaos by dictatorial methods. That such dictatorship was ruthless and destroyed thousands who were considered dissident or non-cooperative is overlooked or unimpressive; that the thwarting of all criticism will ultimately destroy progress is not appreciated! The appeal of State Socialism is so strong as to win support for potentially ruthless means of accomplishment.

Many newly independent countries and areas recently released from colonial supervision are confronted by two opposing ideologies. The American democratic, party method—with its slower evolutionary process—is viewed as costly and “compromising.” In fact, in some areas of the globe where the system is often simulated, it has resulted in splinter parties without the ability or willingness to compromise.

Meanwhile our foreign policy has been directed toward aid for many of these newer independent countries. This is in the nature of technical and educational support—food, machinery, factories, roads, etc. Too often, it would appear to have been hastily conceived and executed, with waste or ineffectiveness, and perhaps the result of a policy for “impact” or emergency measures, or it may be the result of an unwillingness on the part of Congress to plan and appropriate studied long range programs.

Few investments designed to bring understanding between our own and foreign countries are more effective than that of long range educational programs. The work of the Institute of International Education, of the Fulbright and Smith-Mundt Acts, the historical efforts of the Rockefeller Foundation, and—of more recent date—the Ford Foundation, are examples.

It is readily seen, however, that since World War II the need and opportunity for educational programs in foreign aid have found American educational institutions unprepared for the volume and variety of need. It is not difficult to elicit the interest of a professor in an American institute to meet an opportunity in England or Sweden which is sponsored by the Board of Foreign Scholarship, subsidized by Fulbright, and with a sabbatical leave granted by his home institution. But it is another matter to find the necessary American talent, skill, disposition, and personality that will meet a much more urgent need in one of the less developed “hardship” posts in the Far East. The American universities and colleges have yet to sense their responsibility in this latter type of program. True, some emeriti who are still active and capable can fill the positions, but this is not because of any policy or recognition given by the American institution!

The American universities and colleges are often the first to criticize the ineptness of the bureaus and the red tape of the State Department foreign service. The educational institutions, by tradition, should concern themselves where educational programs are involved. Yet they have been slow to activate this concern or to initiate policies which might bring their experience into a position of responsibility. No credit is given to the active faculty who choose to serve in the development of an institution in a “hardship” post in the Orient.

It has been suggested recently that universities pool their potential

talent for foreign service. This would seem a desirable start if, with such a pool, there would be more than casual consent for leave of absence. While it is true that the universities cannot drain too many from their individual faculties, nor mandate a period of foreign service, they could give recognition and credit academically for the unique contribution and experience which such service brings to the individual and, on his return, to his home institution.

If, as it seems likely, our country is going to be involved globally for a long time to come, it would seem most timely for the educational institutions to formulate such policies and attitudes as will assert their concern and active participation in both the foreign field enterprises as well as in the proper placement and opportunity for the foreign student.

The writer believes the two factors: field service and the foreign student who visits America are mutually dependent. Of the two, the student program is usually easier to administer and, with growing experience, better done. But there is still the problem of the foreign student whose experience or education in the United States is unrealistic in regard to what he is expected to do on return to his native land. When, through foreign field experience, the American faculty appreciates the medium, the conditions, and the needs of any given foreign country, they will be better able to direct and advise the programs and experience of the students from such areas. *Francis Scott Smyth, M.D., professor, department of pediatrics, and coordinator, University of California-Indonesian Medical Faculty Program.*

NEWS DIGEST

MEND News

Presently in the process of preparation, and due for release shortly, is the "MEND Speakers List." This new publication lists some 250 qualified speakers in the military and disaster medicine fields who are suggested as visiting lecturers at MEND-affiliated medical colleges.

Copies of the recent *NATO War Surgery Handbook*, which were made available to MEND through the Office of the Assistant Secretary of Defense (Health and Medical) and the Office of the Surgeon General, U. S. Army, were distributed to all MEND-affiliated medical colleges during July.

An addendum to the "MEND Reference List," containing 108 additional items pertinent to military and disaster medicine, is presently being forwarded to all MEND-affiliated medical colleges, as well as those not presently participating in MEND.

American Heart Association

The 30th Scientific Sessions of the American Heart Association, to be held in Chicago's Hotel Sherman, Friday, October 25 through Monday, October 28, will commemorate the 300th anniversary of the death of William Harvey, English scientist who discovered the circulation of the blood.

The Sessions, at which scientists and physicians will report on the most recent advances in knowledge of heart and circulatory diseases, will be part of the association's 33rd Annual Meeting which will extend through October 29.

Among the groups taking part in the presentation of papers and panels at the Scientific Sessions will be the

Association's councils and sections specializing in basic science, circulation, clinical cardiology, cardiovascular surgery, high blood pressure research, rheumatic fever and congenital heart disease and community service and education.

St. Luke's-Presbyterian Merger

Dr. Joseph C. Hinsey, executive director of the New York Hospital, Cornell Medical Center, was the main speaker recently at the board of trustees luncheon at the Sheraton-Blackstone Hotel, Chicago, marking the fall drive to complete financing for the \$20 million expansion program of the two above institutions. Currently the hospitals are operating separately, but they now have a joint board. When their new physical facilities are completed the institutions will be merged at the Presbyterian site in the West Side Medical Center. It has University of Illinois sponsorship and guidance and will be a part of its teaching and research program.

World Medical Association

The World Medical Association celebrated the 10th anniversary of its founding on September 18. As the General Assembly of the Association did not convene until September 29th in Istanbul, Turkey, some of the 53 component member associations arranged special events to commemorate the adoption of the Association's Constitution. Celebrations were held in Paris, France, London, England and New York City.

Department of Health, Education and Welfare

Surgeon Gen. Leroy E. Burney announced the establishment of a new

post as Assistant Surgeon General for Personnel and Training, in the immediate office of the Surgeon General. Dr. Otis L. Anderson, presently Chief of the Service's Bureau of State Services, has been assigned to the new office.

Dr. Anderson will be succeeded in the Bureau of State Services by Dr. David E. Price, now Deputy Chief of the Service's Bureau of Medical Services.

Committee Appointed to Study Medical Research, Education

Secretary Folsom has named a special committee of medical leaders and industrialists to advise him on the "status and future needs" of medical research and education. Chairman of the committee is Dr. Stanhope Bayne-Jones, former Yale Medical School dean and more recently president of the New York Hospital-Cornell Medical Center joint administration board and head of medical research and development for the Army.

Other members are: Dr. George Packer Berry, dean, Harvard Medical School; Thomas P. Carney, vice president, Eli Lilly and Company; Dr. Lowell T. Coggeshall, dean, division of biological sciences, University of Chicago and president-elect of the

AAMC; Fred Carrington Cole, vice president, Tulane University; Samuel Lenher, vice president, E. I. duPont de Nemours and Company; Dr. Irvine H. Page, director of research, Cleveland Clinic Foundation; Robert C. Swain, vice-president in charge of research and development, American Cyanamid Company; Dr. Stafford L. Warren, dean, school of medicine, University of California Medical Center and James Edwin Webb, president and general manager, Republic Supply Company, former Under Secretary of State and former director of the Bureau of the Budget.

American Trudeau Society Fellowships

The National Tuberculosis Association, through its medical section, the American Trudeau Society, is offering fellowships in the field of respiratory diseases and tuberculosis to assist in the training of investigators and teachers of medicine. These fellowships of several types, are all administered from the Philadelphia office and inquiries should be directed to: The Director of Medical Education, American Trudeau Society, c/o The Henry Phipps Institute, Seventh and Lombard Streets, Philadelphia 47, Pa.

College Briefs

Albany

Dr. Frank M. Woolsey Jr., associate dean and director of postgraduate education, is one of five physicians from throughout the nation selected to serve on a committee to study and recommend to the Federal Communications Commission, the medical profession's need for radio channel assignments. Dr. Woolsey was chosen to serve on the committee by the trustees of the American Medical Association. The committee met for the first time on September 6 in Washington, D. C. Dr. Allen S. Cross

of Washington is chairman of the group.

Boston

Grants totaling \$275,045 have recently been received for specialized research projects ranging from a study of human heart muscle to an analysis of the causes of peptic ulcers. Of this total, \$150,099 represents a series of renewal grants from the National Institutes of Health for various projects currently being carried on in the school's departments of dermatology, surgery, physiology, anatomy, biochemistry and medicine.

In addition, the school has received seven new awards totaling \$124,946 from the National Institutes of Health and the United Cerebral Palsy Association for special studies in pediatrics, pharmacology and physiology.

California (Los Angeles)

The school will cooperate this fall with the San Diego County Medical Society and the San Diego County Branch of the Academy of General Practices to offer a postgraduate medical lecture series for the convenience of physicians in the area. Sessions are set for October 17 to June 19, 1958.

The initial October 17 lecture will deal with a review of "Disorders of Fluid and Electrolyte Metabolism" by Dr. Charles R. Kleeman, and Dr. Morton H. Maxwell, both associate clinical professors of medicine.

Cornell

Dedication ceremonies for the new \$500,000 Gannett Medical Clinic, a gift of the Frank E. Gannett Newspaper Foundation Inc., were held on September 14. Mrs. Gannett, wife of the Rochester N. Y. publisher and Cornell alumnus for whom the clinic is named, presented the completed building to the university. Dr. Norman S. Moore, director of the Cornell clinic and infirmary, stated that the new facility will serve as a "screening clinic" for student illness. In addition to offering general clinical services, the new unit will have divisions for treating colds, allergies, athletic injuries and other specialized problems. The new quarters will enable the clinic staff to handle the 50,000 clinic visits which students make each year.

Creighton

Dr. Harle V. Barrett has been appointed acting director of the department of preventive medicine and public health with the rank of assistant professor. Dr. Benedict R. Walske has been appointed an associate professor of surgery and named acting director of the department of surgery and head of the surgical spe-

cialties. He will also be the acting director of the department of surgery of The Creighton Memorial St. Joseph's Hospital. Dr. Walske replaced Dr. Harry H. McCarthy, who is devoting more of his time to private practice and research.

Dartmouth

Dr. S. Marsh Tenney has been appointed to the newly created position of director of medical sciences. Dr. Tenney's principal immediate responsibilities will be to direct the program and to lead an intensive effort to secure the capital funds required for the expansion of the medical school.

A policy has been established to advise Dr. Tenney and the Dartmouth trustees with respect to these plans. In addition to Dr. John P. Bowler, chairman of staff board of Governors of the Hitchcock Hospital, who will serve as chairman, the committee consists of Dr. George Packer Berry, dean of the Harvard Medical School; Dr. Robert F. Loeb, professor of medicine at Columbia University; Dr. W. Barry Wood, vice-president for Medical Institutions of the Johns Hopkins University and Dr. Waltman Walters, professor of surgery and head of a division of surgery of the Mayo Clinic. Dr. Henry L. Heyl, who will continue as executive director of the Hitchcock Foundation, has been appointed assistant director of Medical Sciences for Research and Planning.

Albert Einstein

Dr. Seymour L. Romney has been appointed professor and chairman of the department of obstetrics and gynecology, filling the vacancy created by the resignation of Dr. Morris Glass, who is resuming full-time practice in Brooklyn. Dr. Romney was formerly on the faculty of the Harvard Medical School. Dr. Vahe E. Amassian was appointed professor of physiology, effective July 1.

The National Institutes of Health has awarded sums totaling \$73,820 to Dr. Milton Rosenbaum for three re-

search projects in psychiatry. Dr. Rosenbaum has also been awarded a grant of \$12,960 from the State of New York department of mental hygiene for his "Postgraduate Training Program for Psychiatry and Child Psychiatry."

The American Cancer Society awarded an amount of \$59,205 to Dr. Alex B. Novikoff of the department of pathology for the study of "regression and resistance phenomena in a transplantable rat tumor and sub-cellular particles of cancer cells."

Hahnemann

A grant of \$150,000 for the construction and operation of a laboratory for biochemical studies in cancer has been awarded Dr. Julius Schultz, associate research professor in biochemistry by the National Cancer Institute. With \$102,000 in operating funds guaranteed for the next five years, Dr. Schultz noted that another grant of \$40,000 for additional operating funds is expected. Construction of the laboratory is expected to begin shortly.

Harvard

Dr. Fuller Albright, associate professor of medicine, has been named Honorary President of the newly-organized National Neurological Research Foundation. Dr. Albright is one of three members of the Harvard Medical School faculty named to serve the Foundation which has been established to found research fellowships and support research in the study of the entire nervous system.

Others from the medical school staff who will serve the Foundation are: Dr. Raymond D. Adams, Bullard Professor of Neuropathology and chief of the Neurological Service, Massachusetts General Hospital, and Dr. Mark D. Altschule, assistant professor of medicine and director of internal medicine and of research in clinical physiology, McLean Hospital, Waverly.

Illinois

The Medical Alumni Association announced sponsorship of a Fall

Medical Refresher, to be held on Saturday, November 23, on the university's professional colleges campus in Chicago. The day-long affair, first of its kind at the college of medicine, will consist of panels and open symposium on current medical problems, moderated by key faculty members.

Present Association plans to make such medical refreshers twice-annual events are designed to combine homecoming reunion pleasures with current medical developments for the Illini physicians.

Indiana

The university has received a \$1,824,000 three-year contract from the United States International Cooperation Administration to establish a basic medical science institute in Pakistan. The project is designed to aid Pakistan in improving medical education and to develop qualified medical teachers.

Kansas

Dedication ceremonies for the medical library and library of the history of medicine were held on September 13, with Frank B. Rogers, director of the National Library of Medicine as the speaker.

Mississippi

Dr. Charles C. Randall, formerly professor of microbiology and acting head of the department at Vanderbilt School of Medicine, has been appointed professor of microbiology and chairman of the department. Also coming from Vanderbilt, where he was an instructor, William M. Todd has been appointed assistant professor of microbiology.

Dr. Bernard Hickman assumed his duties as assistant professor of radiology in July, coming from Oschners Foundation and Hospital in New Orleans.

Nebraska

Dr. A. R. McIntyre, chairman of the department of physiology and pharmacology, has returned to Omaha

after a summer trip up the Amazon of South America. Dr. McIntyre travelled to Rio de Janeiro, Brazil to attend the First International Symposium on Curare; he was one of 100 researchers from all over the world to attend the Symposium by invitation from the Brazilian government and UNESCO.

Saint Louis

Dr. Walter J. Burdette, professor of clinical surgery and director of the Saint Louis University Surgical Service at Veterans Hospital, departed in August to make a trip around the world. Dr. Burdette expects to visit medical and research institutions in Japan and will lecture at medical and research centers in Thailand, India, Lebanon, Germany, France, Greece and Turkey.

S.U.N.Y. Brooklyn

Dr. Robert A. Moore has been appointed president of the Downstate Medical Center and dean of the Center's college of medicine, succeeding Dr. Howard W. Potter, retired. Dr. Moore, formerly vice chancellor of the health professions at the University of Pittsburgh, assumed his post on October 1. Dr. Moore is immediate past president of this Association and is a trustee of the China Medical Board of New York.

S.U.N.Y. Syracuse

Dr. Harry A. Feldman has been appointed chairman of the department of preventive medicine. Dr. Feldman has been a member of the faculty since 1949 and has been professor of preventive medicine since 1956.

U. of Washington

Dr. Melvin M. Figley has been

appointed head of the school's department of radiology, effective June 1, 1958. Dr. Figley will be the first permanent head of the radiology department. Currently an assistant professor of radiology at the University of Michigan, he is also a consultant at the Ann Arbor Veterans' Administration Hospital.

Woman's Medical College

A new department of clinical pathology under the chairmanship of Dr. Mary McKee Porter has been established. It has previously been a part of the department of pathology. Two new appointments have been made to the faculty. Dr. Irvin J. Pincus was named associate professor of the department of medicine, while Dr. Anthony L. Pietroluongo was named associate professor in the department of pathology.

West Virginia

The university will dedicate its new Basic Sciences Building on Saturday, October 5. The schools of medicine and dentistry occupied the building this past summer and began classes in September. Construction of the Teaching Hospital, the last unit in the University Medical Center, began last July.

Dr. Robert J. Johnson, formerly associate professor of anatomy at the University of Washington, has been named professor of gross anatomy and chairman of the department. Dr. T. Walley Williams, recently associate professor of anatomy, was promoted to the rank of professor of micro-anatomy and organology and chairman of the department. Dr. J. Clifford Stickney was promoted from association professor to professor of physiology.

Publications

Useful information for both medical educators and students is published by the Association of American Medical Colleges. These publications may be obtained either free of charge or at cost from the Association headquarters office, 2530 Ridge Ave., Evanston, Ill.

Booklets

Medical Education Today (\$1.50).

Report of the Conference on Preventive Medicine in Medical Schools (cloth-bound, \$1.50).

Admission Requirements of American Medical Colleges—1956 (\$2.00).

Fellowships, Funds and Prizes Available for Graduate Medical Work in the United States and Canada—4th Edition published 1954 (\$1.50).

By-laws of the Association of American Medical Colleges (Revised 1955).

Minutes of Proceedings of the Annual Meetings (1947-1956 Minutes now available).

Public Understanding and Support of Medical Education.

Journal of Medical Education

Journal Supplements available:

The National Health Service of Great Britain (\$1.00).

Medical Education in Time of National Emergency (\$1.00).

The Critical Cataloging of Medical Films (\$1.00).

The Teaching of Physiology, Biochemistry and Pharmacology (Report of the 1953 Teaching Institute)—\$2.00, paperbound; \$3.00, clothbound.

The Teaching of Pathology, Microbiology, Immunology and Genetics (Report of the 1954 Teaching Institute)—\$2.00, paperbound; \$3.00, clothbound.

Education of Physicians for Industry (\$2.00).

Trends in Medical Practice (\$2.00).

Support of Research by American Cancer Society (\$1.00).

The Teaching of Anatomy and Anthropology in Medical Education (Report of the 1955 Teaching Institute)—\$2.00 paperbound; \$3.00 clothbound.

Survey of Women Physicians Graduating from Medical School 1925-1940 (.50).

Medical Audio-Visual Institute Publications

Film Catalog, Fall 1955 and Supplement.

Reprints from the Audiovisual News Section of the Journal of MEDICAL EDUCATION.

Films in Psychiatry, Psychology and Mental Health (available from the Health Education Council, 10 Downing St., New York 14, \$6.00).

Films in the Cardiovascular Diseases (Part I available from the American Health Association, 44 E. 23rd St., New York 10, \$2.00. Part II available from the Medical A-V Institute, \$2.00).

Films published by the MAVI are included in the Film Catalog.

Publications of Related Organizations

Suggestions for Supplementing the Medical Curriculum in Time of National Emergency (Joint Committee on Medical Education).

Hospitals Participating in the Matching Program 1957 (NIMP publication).

Results of the Matching Program 1957 (NIMP publication).

The Student and the Matching Program 1957 (NIMP publication).

Medical College Admission Test—Bulletin of Information 1956 (Educational Testing Service publication).

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Audiovisual News

Additions to MAVI Library

The primary purpose of each of these films is to increase the medical students' skill in preparing for cardiovascular system experimentation. The secondary goal is to heighten the students' ability to focus on principles in experimentation by insuring some visual familiarity with the techniques.

Exposure of Neck Structures (Three parts) (1 Reel)\$10

15½ min., sd., color, 16 mm., 1957.

Author: Robert M. Berne, M.D.; Producer: Bernard V. Dryer, M.D.; Director: John H. Eykyn, Jr., all of Western Reserve University School of Medicine, Cleveland.

Cannulation of the Carotid Artery (Part II) (6 min.)

Exposure and cannulation of the carotid artery in a dog for the purpose of recording mean arterial blood pressure.

Cannulation of the Trachea (Part I) (5½ min.)

Exposure of neck structures of the dog, after demonstration of topographic anatomy and technique of a midline incision. Technique of direct cannulation of the trachea for the purpose of artificial respiration during experiment.

Exposure of the Vagus Nerve (Part III) (4 min.)

Exposure, isolation and stimulation of the vagus nerve in a dog.

Sciatic Nerve..... \$4

6 min., sd., color, 16 mm., 1957.

Demonstrates in a dog the exposure of and stimulation of the sciatic nerve.

Author: Robert M. Berne, M.D.; Producer: Bernard V. Dryer, M.D.; Director: John H. Eykyn, Jr., all of Western Re-

serve University School of Medicine, Cleveland.

Spleen—Recording Changes in Size..... \$4

8½ min., sd., color, 16 mm., 1953.

This film shows the spleen exposed, and delivered from the abdominal cavity. Changes in spleen size are being measured directly; the example used shows the effect of intravenous epinephrine.

Author: Robert M. Berne, M.D.; Producer: Bernard V. Dryer, M.D.; Director: John H. Eykyn, Jr., all of Western Reserve University School of Medicine, Cleveland.

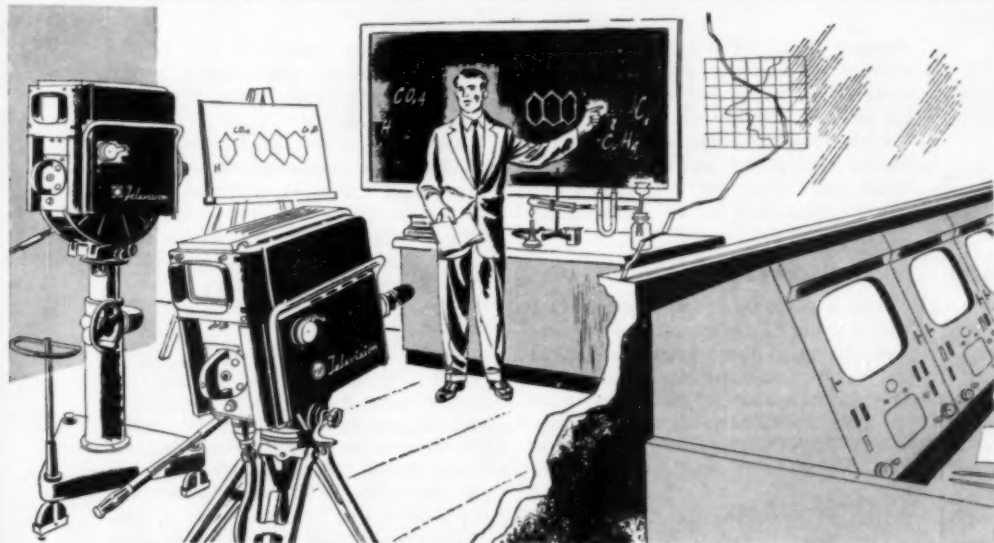
Educational TV Survey

The Educational Television and Radio Center located at Ann Arbor, Mich., acts as a hub of the National Educational Television network, supplying 27 educational stations with a national program service. The standard service in 1957 provides 15 half-hour programs each week. This represents about one-third of the total programming of these stations. This information is contained in Research Report, No. 572, June 15, 1957, prepared and published by the Educational Television and Radio Center.

The report is based on a survey of the programming of the educational stations during one week (April 1-7) and comparisons made with the programming during the same week in 1956. The stations have increased their program hours by 37.8 per cent over the previous year. Children's programs rank highest in the amount of time used (27.6 per cent), Public Health and Safety use 1.2 per cent of the stations' time and Psychology uses .8 per cent of the time.

During the week of April 1, ten

One of a series explaining the successful application of television to education.



2 CAMERAS—choice of vidicon, image orthicon or color cameras

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Effective Medical Instruction via TV Begins with a Television Teaching Studio

A well-equipped *teaching studio* is essential to the success of television in education. Designed to meet the requirements of good TV practice, such a *studio* is the source of programs to classrooms. It has good acoustics and proper lighting to assure a high level of presentation, and will provide pictures of consistently good quality which flow smoothly throughout a TV lecture session.

A basic high-fidelity television teaching studio, with associated control room, is illustrated. Studio is equipped with two cameras and microphones. The use of two cameras facilitates a variety of picture material—close ups, long shots, visual aids, settings. Switching from camera to camera provides a change of pace to spark program interest

and promote fullest attention from students. Control room is equipped with video and audio controls and switching facilities. This equipment can be readily expanded, as your plans develop and your goals increase, giving you needed supplementary facilities and protecting your investment far into the future.

For instruction in medicine and surgery, where live demonstrations via color television offer opportunity for highest realism, system-integrated color cameras will be preferred. A special overhead color camera has been developed to provide a "surgeon's eye view" of operations to any number of students.

For an informative brochure or RCA High Fidelity Television Systems, write to Educational Administrator, Television Equipment, Dept. Y-295, Radio Corporation of America, Building 15-1, Camden, N. J.



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stations were offering credit telecourses accounting for a national total of 43 hours and 45 minutes or 6.9 per cent of the time.

Live programming accounted for 58 per cent of TV productions. Film accounted for 18 per cent and kinescopes accounted for 24 per cent.

Instructional TV Research

"... a good classroom teacher (is) also a good TV teacher" is a conclusion of one of the studies abstracted in "An Inventory of Instructional Television Research" by Hideya Kumata of the College of Communication Arts, Michigan State University. The project was supported by the Institute of Communications Research at the University of Illinois.

The inventory is divided into two main parts. The first part provides a review of research findings on the use and effectiveness of TV for formal instruction. The second part contains abstracts of 71 pertinent articles on instructional television. This is followed by two appendices. The first is an annotated bibliography of 173 further readings. The second appendix contains the results of a survey which was designed to elicit research papers on evaluation of

instruction by television and to find out what courses were being taught by television, either open broadcast or closed circuit.

The overview, part one, cites studies to answer pertinent questions, i.e., "How do students taught by TV compare with those taught by other media?" ("On the whole, television students have done as well as other students and at times better.") Other significant questions include: "What is the effect on retention of material learned through television?" "What methods of teaching in television are the most effective?" and "How important is intercommunication or feed back?" ("Kanner, Runyon, and Desiderato... concluded that most of the questions from the class could be eliminated if adequate preparation and planning went into the lesson plan of the instructor.")

Individuals (or medical colleges) who are considering the use of television for instruction will find the inventory of value, at least for reference purposes. The edition is paper bound, mimeographed (155 pp.), dated December 1, 1956, and is available from the Educational Television and Radio Center, Ann Arbor, Michigan (Price \$1).

Book Reviews

Challenges to Contemporary Medicine

by Alan Gregg

It is a challenge to place a yardstick on the contribution of Alan Gregg to contemporary medicine. In his position as Director of the Division of Medical Education of the Rockefeller Foundation, he had the opportunity to dispense money for the support or development of many significant educational and research programs. This reviewer, however will always credit him with a vision and capacity for stimulating imagination in others that far exceeded any monetary dispensations.

Alan Gregg's wise and imaginative approach to the problems of medical service, education and research shines throughout the pages of these Bampton Lectures delivered at Columbia University in 1953. The problems discussed are representative of Dr. Gregg's broad interest in medicine—from voluntary health insurance to medical research. Throughout, he emphasizes the enormous contribution which "Great Medicine" has made to the welfare of mankind. Further, he points out the need for a greater appreciation of the cost of "Great Medicine" and, ergo, the need for a greater degree of financial support.

This book should be read by every medical educator for knowledge, for stimulation, and for a renewed acquaintance with a great man who did so much to make the "Great Medicine" which is the heart of medical education today.—J.Z.B.

In the September Book Review section, on page 665 we erroneously listed *Essentials of Physiology* (Bainbridge and Memies) 10th edition, as having been reviewed by R. W. Story, Ohio State University. This name should have been R. W. Stacy.

The Physician-Writer's Book

Richard M. Hewitt, A.M., M.D. W. B. Saunders Company, 1957 415 pp with index

This is a well written, well illustrated book on medical writing specifically written "to aid the unexperienced, inexperienced, occasional physician-author, whose material is written for other physicians." It is not a style book directed to editors nor is it a book that one would want to read like a novel from cover to cover. It is a reference book so well indexed and so well organized that one can easily find the information one is seeking whether it be "split words," "illustrations," "footnotes" or "shipping of photographs."

The table of contents provides another useful key to the contents since it provides full descriptive headings for each of the 39 chapters and each of the 21 appendices. Part 1 concerns the whole article or book, Part 2 discusses the paragraph, Part 3 the sentence, Part 4 words and brief groups of words. Part 5 is concerned with tables and illustrations, Part 6 with preparing the manuscript for release and securing a copy-right, Part 7 with ethics.

Dr. Hewitt has had a wide experience in editing medical publications, as assistant editor of the *Journal of the American Medical Association*, as an editor for the National Research Council, the office of the Surgeon-General of the U. S. Army, and the War Manpower Commission. For many years he has devoted the greater part of his time to editing papers in the Section of Publications of the Mayo Clinic at Rochester, Minnesota.

Dr. Hewitt knows what the common problems of medical writing are and he knows how to make a successful approach in solving these problems. His book is carefully written and practical because of the large number of examples he uses in making his points. This book should make a very useful addition to the library of any physician who does writing of any kind.—D.F.S.

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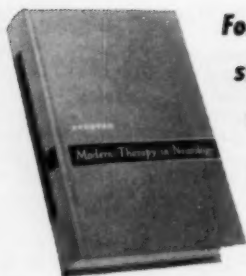
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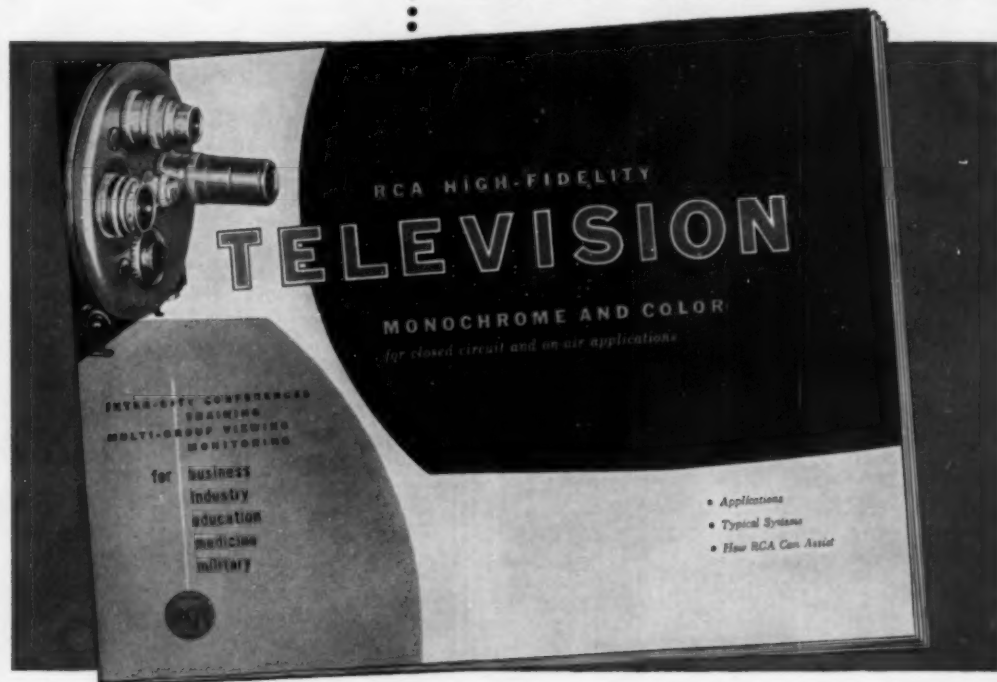
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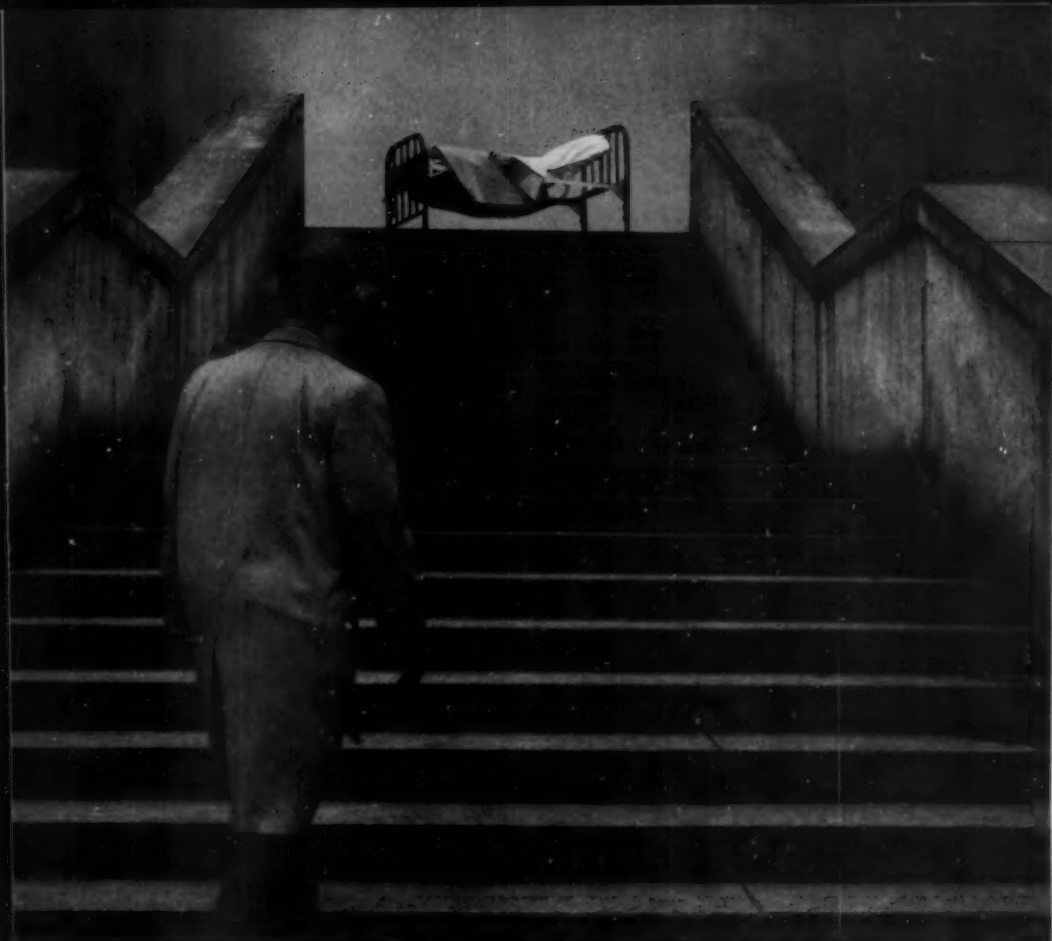
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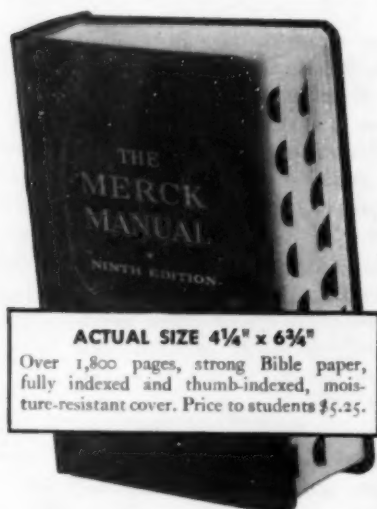
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